


# AUTHENTIC *Science* FICTION



*The* **SINGING  
SPHERES**

*by Jon J. Deegan*

16

MONTHLY

No 23

"Two weeks ago I bought a 'Joan the Wad' and to-day I have won £232 10s. Please send two more."—B.C., Tredegar, S. Wales.

Extract from "Everybody's Fortune Book," 1931.



Guaranteed dipped in water  
from the Lucky Saint's Well

## JOAN the WAD

is the  
**LUCKY CORNISH PISKEY**

who  
**SEES ALL, HEARS ALL, DOES ALL**

JOAN THE WAD is Queen of the Lucky Cornish Piskeys. Thousands of persons all over the world claim that Joan the Wad has brought them Wonderful Luck in the way of Health, Wealth and Happiness.

### HISTORY FREE FOR A STAMP.

If you will send me your name and address and a 1/- stamp and a stamped addressed envelope for reply, I will send you a History of the Cornish Piskey and the marvellous miracles accomplished. JOAN THE WAD is Queen of the Lucky Cornish Pisk. and with whom good luck and good health always attend.

### AS HEALER

One Lady writes: "My sister suffered very badly for years, but since I gave her a Joan the Wad to keep near her she is much easier. Do you think this is due to Joan or the Water from the Lucky Well?"

### AS LUCK BRINGER

Another writes: "Since the War my wife and I have been dogged by persistent ill-luck, and we seemed to be sinking lower and lower. One day someone sent us a Joan the Wad. We have never found out who it was, but, coincidence if you like, within a week I got a much better job and my wife had some money left her. Since then we have never looked back and, needless to say, swear by 'Queen Joan.'"

### AS MATCHMAKER

A young girl wrote and informed me that she had had scores of boy friends, but it was not until she had visited Cornwall and taken Joan back with her that she met the boy of her dreams, and as they got better acquainted she discovered he also has "Joan the Wad."

### AS PRIZEWINNER

A young man wrote us only last week: "For two years I entered competitions without luck, but since getting Joan the Wad I have frequently been successful although I have not won a big prize, but I know that . . . , who won £2,000 in a competition, has one because I gave it him. When he won his £2,000 he gave me £100 for myself, so you see I have cause to bless 'Queen Joan.'"

### AS SPECULATOR

A man writes: "I had some shares that for several years I couldn't give away. They were 1/- shares, and all of a sudden they went up in the market to 7/9. I happened to be staring at Joan the Wad. Pure imagination, you may say, but I thought I saw her wink approvingly. I sold out, reinvested the money at greater profit and have prospered ever since."

All you have to do is to send a 1/- stamp (Savings Stamps accepted) and a stamped addressed envelope for the history to—

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## AUTHENTIC

# Science

## FICTION

NUMBER TWENTY-THREE

(Technical Editor: H. J. Campbell, F.R.H.S., M.S.C.I., F.B.I.S.)

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## "old growler" back

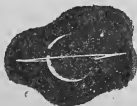
We know that a lot of readers have been looking forward to the story in this issue. Stress of other work has kept Jon J. Deegan from our pages, but his long-awaited return is marked with a story that's even better than his others—and fully a few thousand of you have told us that you think his stories are the best we publish.

Deegan, you say, has the knack of making his stories and characters seem terribly real and credible. And that, after all, is one of the highest points of attainment in fiction-writing.

New readers—if there is anybody left who hasn't read us before—can judge for themselves. But all of you let us know what you think of **THE SINGING SPHERES**.



An innovation in this issue is the inclusion of poetry. Though a good many other sf mags regularly publish poems, we have always considered that the space could be better spent on other things. This time, however, we have made an exception in the case of a poem sent in by a reader in Hong Kong. It appears on page 4. We do not intend to make a habit of this — unless



popular demand says yes—but should anything exceptional turn up occasionally, we will print it.



**AUTHENTIC SCIENCE FICTION** is the one sf mag in Britain that takes an active, open interest in fandom. We want fandom to grow and flourish in this country as it does in the United States. There, according to the 1952 **OPERATION FANTAST** handbook, 14 sf clubs and societies are actively at work airing views, exchanging magazines and letters, holding meetings. In Britain, the handbook says, there are 10—one of them devoted exclusively to fantasy art.

We would like to see these clubs grow and further clubs formed. Any reader who wishes to start a club, or wishes to appeal for more members to join an existing club, should send us a letter with the details and we will endeavour to print it.

There is no charge for these services, which are supplied as the contribution of **ASFm** towards the spreading of science fiction until it becomes a recognised and respected literary form. We know that it is the fans and the clubs who are raising the standards. Because of them, we have raised our own, so that now we are acclaimed as being at the top of British sf by people who know and love the field.

The letters **ASFm** stand for something more than our title: they stand for quality fiction and for the encouragement of fandom.

EDITOR.

## Forrest J. Ackerman

writes from America . . .

One would almost get the impression from the publishers' announcements that there will soon be more science fiction **BOOKS** per year issued than magazines! Among the promised titles are **SPACE PLATFORM** by Murray Leinster, **THE DEMOLISHED** by Alfred Bester, **FUTURE TENSE** and **DANGER! CRIME AHEAD** by Ken Crossen (anthologies), **MAROONED ON MARS** by Lester del Ray, **OUTPOST MARS** by Cyril Judd, **FIVE AGAINST VENUS** by Philip Latham, **THE CRYSTAL HORDE** by John Taine, **MAN OF MANY MINDS** by E. Everett Evans, and **SON OF THE STARS** by Raymond F. Jones.

Ray Bradbury was Guest of Honour at the California-wide science fiction conference held on June 28-29 in the seaside city of San Diego. Bradbury recently sold a 1,500-word story at the rate of 3/6 per word—fantastic in itself!

A television contract has been finalised for van Vogt and Mayne Hull for the presentation of a weekly serial revolving around the Earth-Mars-Venus adventures of Moon-born man-plus in the years 1980 onwards. Yours sincerely is collaborating on the screen scripts, with 108 scenes completed at the present time.

In Germany, Peter Lorre is starring in a film called "The Volcano People." In France, translated editions are scheduled of Philip Wylie's **WHEN WORLDS COLLIDE**, van Vogt's **VOYAGE OF THE SPACE BEAGLE**, Taine's **SEEDS OF LIFE**.

An editor of one of the newer Stateside magazines tells me that he's risking coruscating criticism with his 4th issue, but if necessary he'll go out in a blaze of glory. The story is that he's bought a yarn that was turned down as *too mature* by the vauntedly adult magazines. How frustrated can a writer get?



I myself recently did a taboo-touching tale for the sf field. One editor told me he'd give a limb to be able to print it, hut—! Another returned it as "too hot to handle." But the third editor's reason for rejecting it floored me: "Our readers would be merely bored," he declared. "I don't find the theme so daring. In my magazine it would be old hat."

Lighter note: **ALIAS A WOO-WOO** by Sherwood Springer and **THE DEVIL, YOU SAY?** by Chas. Beaumont are two yarns which have whetted Hollywood's appetite as properties for the fantasy film cycle. "Ring Around Saturn" is a picture which will be produced in Technicolor!!

Cordially 4aj.

Read Forrest J. Ackerman's latest sf news from America, which will appear every month.

## projectiles (1)

### BEST EVER

I'm not exactly a guy for passing out compliments, as my sf associates around the world will tell you, but a time comes when a person can no longer restrain himself, and is forced to serve praise where such is called for. This is certainly the case when it comes to criticize AUTHENTIC SCIENCE FICTION. It is by far the best scientific magazine ever to reach me from the shores of your country. Keep up the good work.

RONALD S. FRIEDMAN,  
Brooklyn, New York.

Those who know, as we do, the extent of Ron. Friedman's connection with the sf fraternity all over the world will realise how proud we were to receive this letter. Thanks, Ron, you've bucked us up a lot. Let's hear from you again.

### STILL CLIMBING

I enclose herewith 10/6 for the next six of the best of science fiction it has been my pleasure to read.

Your books have climbed steadily since your first book "Mushroom Men from Mars." Your Covers are excellent, but I think more room could be given to your "Projectiles."

Will we be having any more of those intrepid explorers of yours—Shiny Spear and the Old Growler Trio?

M. T. GREEN, C/Mx904245,  
H.M.S. Pembroke,  
Chatham, Kent.

Thank you, Michael, for your praise. ASFm seems to have anticipated your letter with this issue—more Projectiles, and the "Old Growler Trio."

(Projectiles are continued on p. 110.)

### SONG FROM CHINA

Congratulations on producing a really fine British sf magazine. I enjoyed DARAKUA greatly and consider it a story well told. The covers match the quality of the stories, but couldn't you get the price tucked down in the bottom corner? I enclose a copy of a poem I've written and would be proud to see it in AUTHENTIC SCIENCE FICTION. By the way, am I your most distant subscriber?

Cpl. DUNN, R.  
80 Squadron, Kai-Tak,  
Hong Kong.

*Well, we don't know, Corporal. We've got subscribers in the U.S.A., Australia and Java. Anyway, you're certainly a long way off. Here's your poem in print:*

Reach for the stars, you pioneer,  
Bring me them in your metal'd hand,  
The unsetting stars by which you steer,  
Or Saturn's jewelled waist-band.

Your trade-wind is a rocket's blast,  
Your ship a sealed tube of steel,  
No sheet bent on a sturdy mast,  
No helmsman at the wheel.

The planets, island-scattered in  
Endless oceans of dark space,  
Unknown dangers wait for him  
Who wins the stellar race.

Empires wait the conqueror's claim,  
Cortez and Raleigh live once more,  
Your life or death may bring you fame  
On some new world shore.

And, Space-man, if your dying breath  
Be gasped in some non-Terra place,  
Pray that the message of your death  
Bring unity from Earth to Space.

R. Dunn.

### FUTUREPHOTOGRAPHY

Are any of your readers interested in futurephotography, that is, table-top photography of science fiction models? I have tried one or two, but with only one good result.

Sgt. BRAIN, S.,  
G.H.Q., Melf., 17.

## THE SINGING SPHERES

By Jon J. Deegan

### CHAPTER ONE

#### Whistlers of the Ether

WE had travelled nearly ten miles through the low, brown foothills of Kardon before the noise began. Ahead of us lay a ridge of beige-coloured rock—bare and sun-baked as all the rest of this unappetising planet—while above spread a strange, pink sky, whose tint did nothing to offset effects of the sweaty, stifling atmosphere through which we marched.

"I don't know about you," said Tubby Goss, our photographer, "but I'm taking ten minutes off for a rest!"

Behind the transparent morynium facepiece of his helmet, I saw his plump cheeks puff themselves with fatigue. Personally, I felt in no better shape.

Young Hartnell's tanned, lean face grinned. "Now, now! Think what the controller might say—"

"Curse the controller!" said Tubby, cold-bloodedly.

Quite frankly, I think any of us would have hesitated in other circumstances from using language of this sort, even light-heartedly, because outside transmitter switches have been known to be left on accidentally, with the result that muttered blasphemies inside an atmosphere suit ring out loud and clear on the controller's amplifiers. If there is one thing I wouldn't do for all the cobalt on Zenna II, it is to fall foul of a stony-hearted Inter-X controller, sitting up there in his room at the top of the ship, with powers of life and death over exploration parties during his spell of duty.

Because of their wide responsibilities, only men of rigid principles and strict standards are selected as controllers. It is to them that field squads report from time to time during wanderings over a planet undergoing investigation, and there are occasions when a controller must make decisions that

would frighten lesser men. A party might have to be sacrificed to avert an interplanetary or civil war, for instance, or their lives might be the price of getting back information of exceptional value to mankind. The controller has the unenviable job of making such decisions—often in a matter of seconds.

At our headquarters aboard Interplanetary Exploration Bureau spaceship No. 2213—everybody knows her affectionately as *Old Growler*, because of a peculiar noise from her gravity retractors—we have, I think, nine or ten controllers, working in six-hour shifts. No one among the rank and file can be certain, because, for reasons of discipline, we never get to know controllers except as disembodied voices over loudspeakers.

But on this trip, at least, we were free agents, although I noticed a cautionary eyebrow or so raised by higher-ups at the briefing session. *Old Growler's* present task was investigating the planetary system of Eta Herculis, and the powers-that-be tackled it in their usual systematic manner. The ship herself and the main squads concentrated on worlds shown by instruments to be worthy of intensive exploration; less promising globes received a visit only from scout ships bearing small crews, who reported on the prospects.

The three of us—young Hartnell, physicist and geologist; Tubby, the photographer; and myself, a botanist of sorts—comprised one of the lesser crews, and they had directed us into the outer orbits towards a bare, inhospitable chunk of rock named Kardoon, while *Old Growler* cruised several million miles away in search of more profitable fields. A position and time had been fixed, reassuringly enough, for our return rendezvous.

So whatever unpleasantness surrounded us at the moment, we were at least free to speak our minds about controllers. Needless to say, both Hartnell and Tubby used the opportunity to the full.

"Let's take a breather, then," I said, secretly thankful. Despite the air-conditioning of a Bergmann Mark VIII suit, I felt sticky and exhausted. I looked across the hot, jagged slopes to our ship on the plain, scarcely visible now through the haze. "Even though they've built pedometers into these new suits they can't make us keep walking every minute of the day."

Someone, somewhere, had been sitting down on the job rather too literally and too long. The resultant protest travelled via usual official channels until now, on our current expedition, orders were that field squads must keep log-books of distance travelled on foot. Little pieces of red-tape annoyance like this are all part of Inter-X routine, and probably the order would be cancelled next time round in the hope that everyone had by then learned his lesson.

"It's a great life if you keep your sense of humour," said Hartnell, squatting under a sheltered ledge of rock and yawning. "Tell 'em we haven't done much mileage to-day because of all the interesting specimens we've been collecting."

If I didn't know this young devil-may-care so well I'd sometimes think him completely irresponsible. "They'd want to see the specimens," I said, discouragingly. "Probably they've heard that one before—"

He laughed and said he thought he'd take a nap. Tubby decided it would be a good idea, too.

I watched them close their eyes and they were soon slumbering peacefully, completely undisturbed by the thought that they rested alone on a strange, far-off planet, where the foot of Man had never previously trodden.

Enviously, I looked away. Tired though I might be, sleep wouldn't come. I stared out into the pink heat-haze and started one of those depressing trains of thought about whether life was worth while. Assorted adventures had come the way of our little party in the past. It was enlivening to look back on them—they were, of course, far from amusing at the time—and to think how the experiences had welded the three of us into a strong, affectionate comradeship. But such occasions were the exception rather than the rule. Space travel had become commonplace and only in the ranks of Inter-X engaged in pushing out Man's frontiers towards the myriad shimmering galaxies—did we recapture a pioneering spirit. Yet even so, the vast majority of work had become mere routine. We landed on world after world, only to find bare, uninhabited rock. Now and again there were traces of lichens on the stones, sometimes little wriggling things in a pool. They were carefully preserved and tabulated as specimens for fuller, more minute examination in the laboratories. I'd known many days when the sight of another fungi or lichen could easily have set me screaming with the monotony; and many more when I'd have been thankful even for these to break the

profitless process of prodding chunks of sterile silica.

A funny thing, I thought, that I couldn't stand the exciting times and didn't like it either when life was quiet. I looked again at Hartnell and Tubby, resting easily, and wondered whether I might be getting old.

Anyway, Kardoon was already marked down in my mind as another uninhabited planet. The back-room boys aboard *Old Growler* thought so, at least. We took turns round the place in the scout ship, spying vast, brown deserts and a few grey seas. Hartnell put the vessel down near the shore and we went out to find the water steaming and heavy with ammonia. Tests with the Mesonic filter showed nothing—no scrap of plant life, no microscopic blob of protoplasm. After one or two other calls, he descended again near our present location on the pretext of gathering geological specimens, saying also that the foothill strata might produce results.

In this way we came toiling towards the ridge, finding it heavy going despite the gravity-reactors in the Bergmann suits. There was only one comfort—we certainly wouldn't be overworked and we wouldn't have to keep making the usual hourly reports to the controller.

And with these reflections, I, too, slept.

Nearly two hours later I awoke with a blinding headache. First thought was an oxygen-fault or an insulation filter gone wrong. Everything was working normally, though, so I turned up the oxygen a little more for luck and felt better after a while. Hartnell and Tubby were both frowning in their sleep, with little puckers of flesh forming near the bridge of the nose, and stirring uneasily.

Alarm prickled coldly along my backbone. Despite the head-swimming pain and ringing in my ears, I pulled myself beyond the sheltering rock and looked out. Everywhere was still deserted and desolate beneath that horrible sky.

"Wake up, you two," I said. "Wake up!"

I heard them groan in chorus. Then Hartnell opened his eyes, only to shut them again as though someone had hit him across the forehead. I staggered across and clicked round their oxygen taps two or three notches.

"Suffering Sirius!" said Hartnell. He had a weakness for alliteration in moments of stress. "My head!"

"What the devil is it?" groaned Tubby. "Something we ate?"

Our last meal had been in the scout ship and undoubtedly quite wholesome.

Hartnell licked his lips wryly, as though trying to get rid of an unpleasant flavour. "Reminds you of a hangover after a night in a Z-bar, doesn't it, Pop?"

Z-bars are where bright young spacemen relax between trips and certainly no places for a respectable, middle-aged botanist. "I wouldn't know," I said, coldly, and brought the discussion to a more reasonable level. "Could it be something in the atmosphere that gets past the filters?"

Apparently it wasn't. Hartnell made one or two quick tests on gadgets I don't understand and said the air in this region was the same as elsewhere—very little oxygen, some nitrogen, lots of argon and other inert gases, with odd traces of fluorine and ammonia. "I'm sure there's nothing else," he said, baffled. "If only my head didn't ring so much—"

"You get that, too?" asked Tubby, interestedly. "Sometimes the height brings it on with me—"

It did with me, also, but I wasn't going to wait aimlessly while these two invalids discussed their symptoms. "How about radiations of some sort—"

"That's right," said Hartnell. "High-pitched sort of ringing. Makes your ears feel numb inside—"

"Yes, and funny-like, as though you're dazed—"

"Radiations?" I said, firmly. "Could it be that?"

"A kind of very high buzzer-note—whistling and ringing at the same time," went on Hartnell. "At least, the oxygen's easing the headache a bit, even though it doesn't seem to quieten the noise—"

"Try swallowing quickly," suggested Tubby. "Or if you think it's safe to take the helmets off for a few seconds how about—"

Obviously, they didn't intend to pay much attention to my suggestions, and in something of a temper I decided I wouldn't listen to them, either. I put my thumb to my belt and flipped off the radio inter-com.

And in the same instant the noise stopped.

The silence which followed was so startling and so abrupt that for a moment I failed to realise it. The feeling of relief eclipsed everything else.

Experimentally, I switched on again.

"—so high-pitched, really, you can hardly hear it," Tubby was saying.

"Your idea of swallowing doesn't seem to help much—"

Over the sound of their voices I heard once again the incredibly shrill whine, almost beyond audible register. When I clicked the switch, all went silent.

So I turned on the inter-com yet a second time and said in a firm voice: "If you two hypochondriacs would listen to me for a moment I could tell you that—"

"Not actually loud, is it?" asked Hartnell. "Quite faint, really, but—well, penetrating—"

"Shut up!" I yelled.

That quietened them all right. I saw Hartnell's eyebrows rise inquiringly. "If you'd let me get a word in edgeways, I can give you the reason. Somebody's inter-com isn't properly adjusted. There's a heterodyne coming through. We went to sleep with the sets switched on and that whine sounding in our ears all the time. No wonder we got headaches."

They both stared for a moment, then switched off simultaneously and I knew from their expressions that they once more experienced the blessing of silence.

But I felt my face grow rather red, because the ringing persisted. Obviously, my own inter-com was to blame.

Hartnell guessed this, and to his everlasting credit said nothing except "Let's have a look, Pop. It shouldn't take long to fix—"

So far as possible, all gadgets in the Bergmann suits likely to need adjustment or emergency overhaul rest in outside pockets, from which they can be easily detached. I pulled out battery leads and unclipped the set when a peculiar look on Hartnell's face froze me there, still holding the inter-com in my hand. He made no move to take it.

"Now that's very funny, Pop," he said, quietly. (I could hear him over the outside transmitter, which was still working—whistle and all.) "Here's your set switched off—but my ears are still ringing."

"Minc, too," agreed Tubby.

Then I told them about the noise on the outside transmitter and we all looked at one another for quite a time without speaking.

After that we began to turn our sets on and off in all

manner of combinations—we couldn't do much by way of altering frequency, because the inter-coms were fixed and the outside transmitters merely gave us the choice of three pre-selected channels—but always the sound pursued us, never altering, either in tone or volume.

Young Hartnell drew a deep breath. "You know what I think—?"

I didn't like it at all.

"Yes," said Tubby, shortly. Quite obviously, he didn't like it, either.

"Our radio kit's in perfect order," went on Hartnell, unperturbed. "Therefore, we've only one answer—"

"Static," said Tubby. "Atmospheric interference. Radiations from fission of sorts—" He didn't sound particularly confident in his objections.

"—we're listening to a definite radio transmission!"

"Out here?" I demanded. "Sirius knows how many million miles away from anything?"

I saw his teeth show in a white, attractive smile. Both Tubby and I liked matters even less then, because we'd seen Hartnell smile like that before. He always did it when things were getting tough.

"We didn't hear it out there, did we?" He gestured down to the plain where our ship lay. "It's only since we've climbed this ridge—"

I looked past his arm towards those desolate brown rocks and the horrible sky, feeling myself sweating more than ever. I caught Tubby's eye. Inside his suit he shrugged helplessly.

Young Hartnell rubbed his hands briskly. "Well, come on. Let's get going and tick up a bit more mileage."

## CHAPTER TWO

*Rainbow Bubbles on the Rocks*

THE brow of the ridge lay some three or four hundred feet above us—a dark, frowning proclivity of rock, up which we toiled with the gravity gadgets set almost to maximum and chattering all the time in an attempt to take our minds off that persistent, irritating whistle. We had uncomfortable pre-sentiments about what might meet our eyes when we looked into the valley which undoubtedly lay beyond.

"Confound these straps!" said Tubby. "They're cutting my legs in two."

"That's the worst of having a lot of surplus fat to carry round," said Hartnell, unsympathetically. "Now, if you were a straight, lithe figure of a man, like me—"

Personally, I saved my breath for climbing, although there was something in Tubby's complaint. Reactors are a standard fitting in the Bergmann suits and undoubtedly a great help in places where gravitation is abnormally strong or where operators must climb. Light harness inside the suit fits round waist and thighs and a small control lever on the belt applies the power. They won't lift a man into the air, of course, but they certainly take a weight off his feet.

Not being an expert on such matters, I haven't the faintest idea how reactors work, but Hartnell once told me the theory goes right back to the eighteenth century, when one of those clever old physicists—I believe his name was Isaac Newton—evolved certain natural laws. One of the laws was to the effect that "every action has an equal and opposite reaction." Therefore, said Hartnell—as nearly as I could follow—the downward drag of gravity must be balanced somewhere by an upward thrust, and if you could only lay hands (so to speak) on this upward thrust the effects of gravitation could be largely offset. He said it was like having two equal weights suspended on a rope over a pulley, so that it needed only a touch of a finger to tip the balance whichever way you liked.

Of course, the reactors weren't nearly so efficient as that, but the "finger-tip touch"—applied by an yttrium power-

pack—made the thing practical for as long as thirty-six hours at a time before re-charging. And, admittedly, working at full throttle was inclined to make the harness chafe somewhat, but I didn't see what they could do about that.

Eventually we paused, the last level of rock scarcely two feet above our heads. We looked at one another.

"Well," I said, "who's going to do it?"

"We're in it together," said Hartnell. "We might as well do this together."

I wasn't altogether displeased at the anti-climax that followed. Our three helmets rose slowly over the ridge and we saw stretching before us a wide, deserted basin of the inevitable brown desert, enclosed by foothills on the farther side and with a dry valley outlet eastwards. The plain extended fully four miles—and nowhere was there sign of vegetation or other life.

Tubby drew a deep breath. "What now?"

"You get your cameras busy on this delightful scene," said Hartnell. "Otherwise you'll have something apart from lack of mileage to explain to the controllers." He bit his lip and I knew he was thinking. "This confounded whistling—if we'd only got some sort of direction-finding gear—"

"Do you get the impression that it's louder since we came from behind the rocks?"

"Well—I wondered. Didn't like to say anything—"

Eventually we decided to please our superiors with a few more figures ticked upon the pedometers, heading towards the outlet of this baked depression and feeling no small relief at being able to walk in more or less normal manner downhill between boulders and rough stones.

After half an hour, when we were all sweating copiously again, Hartnell said, "Let's have another rest—"

Tubby opened his mouth to say something, but thought better of it and merely grunted.

"My eyes are smarting a bit, too," I said. "It's this glare."

"Yes, I suppose so," said Hartnell, absently. Obviously he had something on his mind and we regarded him suspiciously.

In silence we approached a big slab of rock, tilted on end, to find support for aching backs. From where I sat I could see right into the funnel-shaped exit from the plain as it dived down between precipitous, jagged cliffs. The light made some distant outcrop of coloured mineral shine like a tiny,



iridescent bubble. Idly, I closed one eye. Heat-haze caused reflections from the gay bubble, making a second pin-point appear on the opposite cliff-face.

I opened the eye again. The second little bubble didn't vanish. I squinted in various ways, trying to make them disappear or multiply and they obeyed in a thoroughly amusing fashion. I managed to increase the reflections to six before suddenly realising that the whole business was rather childish and then closed both eyes, prepared to doze.

But the irritating whistle still sounded in my helmet—louder, if anything, and developing discordant harmonics.

"It's hopeless trying to sleep with this row," complained Tubby. "In any case, we'd only wake up with more undeserved hang-overs."

"Try focusing on that piece of mica or whatever it is shining in the valley," I suggested. "It'll wink back with all the colours of the rainbow. Highly entertaining and no strain on the intellect—"

He did so. "I can see four—"

I made it four, too—which was rather a peculiar coincidence.

"Now it's only two—"

He was right. There were a pair of the twinkling pin-points, glowing violet, orange, green and yellow in quick succession and providing a welcome, colourful contrast after the terrain's monotonous shades of dull brown.

"I make it four again," said Hartnell, suddenly.

He was right. There were four. I felt the hair slowly prickling in the nape of my neck. "Not—not lamps? Not something signalling to us?"

In the silence—except for that maddening ringing noise—the sweat trickled coldly down my spine.

"Well," said young Hartnell, brightly, "we'd better go and find out!"

No one can deny that Inter-X rewards its men well from a financial standpoint. There are, indeed, times of slackness and boredom when I often think it's a shame to take the money; on other occasions—such as when we waded through steaming swamps wondering whether something may jump out and grab us by the ankles or when we walk across an open plain to determine the source of strange signal lights—the salary isn't a penny too much. Now and again I'd willingly

forego all my back pay to be safe and sound once more aboard *Old Growler*. This was one of those days.

We snapped down the telescopic visors in our facepieces and stared unwinkingly as we walked. The four shining objects remained suspended on the cliff like lamps at the mouth of an old-style sailing harbour. They were definitely circular or spherical.

When we had approached within half a mile, two of them moved—not like soap bubbles, floating aimlessly in the hot air, but with definite impetus. With a speed that might have deceived us but for the visors, they vanished behind a rocky ledge.

"Perishing Procyon!" exclaimed Hartnell. "Did you see that?"

I certainly had; Tubby, in fact, had done more and caught the whole proceeding with his telescopic lenses. Through the whistling I heard his cameras whirring softly.

The remaining guardians of the valley—for this they appeared to be—stayed firm at their posts. Before long we were able to let the visors snap back and take a good look at them with normal eyesight.

As we had imagined earlier, these objects were spherical or nearly so, with a soft, confused outline of rapidly-changing colour. Moreover, they were quite transparent, and the weathered stone to which they clung could easily be seen through their substance.

It was when we stood no more than a hundred yards distant that one of the things slowly detached itself from the rock and floated towards us. The motion was leisurely—quite different from the agitated swoop to shelter made by the others.

Goggle-eyed, I watched it move slowly nearer.

"What in Andromeda is it?" asked Tubby.

The thing bobbed suddenly, as though in alarm or menace, and my nerves almost literally shrieked with suspense. Then it resumed floating quietly—not towards us, but moving off to our left, where brown cliffs rose sharply on the far side of the basin, and at no more than walking pace.

We waited until it was nearly out of sight, and when we looked towards the valley-mouth again four others had joined the lone sentinel.

"Well," said Hartnell, "I'll admit I've never seen anything quite like these before—"

"Think they're—dangerous?"

He shrugged. "Mr. Fuzzy-bubble over there—" he jerked a thumb in the direction of the departing sphere—"seemed to think we were. At least, it proves one thing—"

"Oh?" I said. "What?"

He stared curiously for a moment. "Didn't you notice, Pop? That row in the inter-com—these things cause it! You heard the howl when that one jumped about just now—"

I stared. "I thought it was just my nerves playing tricks," I confessed, rather sheepishly.

"Well," said Tubby, "let's get on and see if we can't quieten 'em a bit. This whistling's wearing me down."

"A lot louder now, too," admitted Hartnell.

At last we were able to see the objects at close quarters. Their general appearance did not change, but we finally estimated their size fairly accurately. The spheres varied between fifteen inches and two feet in diameter. They clung motionless, except for a faint twinkling of the outer envelope, and they were definitely responsible for the ringing sound we all heard. By now the noise had become so intense I wondered how long I might endure it.

Suddenly we saw No. 1 returning from its journey to the cliffs. It hung before us a few seconds—changing colour more rapidly, I thought—then moved off slowly again in the direction from which it had come. It halted, moved a few yards, paused once more, floated on again. And each time the monotonous whistle on the inter-com altered its note very slightly.

"What in Altair is it doing?" I asked.

"Why," said Hartnell, "don't you see? It wants us to follow!" He paused, thoughtfully. "Only," he added, slowly, "I don't think we'll waste time that way."

## CHAPTER THREE

### *Nursery For a Dying World*

YOUNG Hartnell's gift of generalship has formed a notable feature of our past adventures. I suppose it boils down to an instinctive talent for doing the right thing at the right time, but in the present case I confess I'd have gone off after the floating bubble, anxious to co-operate in the interests of human knowledge.

Yet when we came to analyse the situation, Tubby and I could see quite clearly how the land lay. We could ask ourselves several interesting questions. Why were the spheres so obviously guarding the valley-entrance? Why had they dodged to and fro with such agitation when they somehow saw us approaching across the enclosed plain? If they viewed us with suspicion—as, no doubt, they had every right to do—wouldn't they try to divert us from the valley? Finally—what did the valley itself contain?

"Come on, then," said Hartnell. "Let's wander through that gap in the rocks and see what they're up to." He might have been suggesting a pleasant Sunday afternoon's walk instead of preparing to stick his neck into unimaginable perils, and Tubby followed him just as calmly. For my part, I wished we'd followed Mr. Fuzzy-bubble out across the desert.

More spheres popped into sight from somewhere until when we reached the narrow cleft of rock there must have been fully a dozen clinging like limpets to the cliff-face.

"Take no notice," said Hartnell. "Ignore 'em and keep going."

It was all very well for him to talk like that. I looked at the nearest pair, now scarcely a dozen yards away. The noise over the inter-com became indescribable. Ringing and whistling sounds multiplied themselves to a shrieking crescendo.

"I've—I've got to switch off!" I gasped. "I can't stand it any longer—"

"No, Pop, no!" said Hartnell, urgently. "We might need to talk to each other in emergency—"

Before I could answer, we all halted simultaneously in our tracks. Some intangible barrier—against which we pressed in vain—stretched itself across the narrow pass. I imagined myself leaning against a great, soft, invisible mattress, that yielded slightly but refused to give way, and the more I pushed against it the greater its resistance became.

In baffled consternation we retreated—the only possible thing to do. Even Hartnell seemed shaken, and he was staring round in angry bewilderment when Fuzzy-bubble appeared again. (I don't know why I keep using this absurd name, so flippantly coined by Hartnell, except that it describes the object so accurately.) This particular sphere was easy to detect because all the others remained anchored to the rock instead of moving around freely, and somehow there was more purple among its flickering, ever-changing hues. It came quite close, as though to attract our attention, and resumed its alternate drifting and halting.

We took no notice of this invitation, however, and walked back a little way to go into conference.

"Well, now," said Tubby, sarcastically, "do you think the controller's likely to complain because I haven't got a photograph of—of a wall of thin air?"

"It gives me the creeps," I said, shuddering. "I've never come across anything like it."

"Beats me," confessed Hartnell. He looked up, though, and I caught a gleam in his eye. "Except—"

I waited, saying nothing but expecting the worst.

"Except," he went on, slowly, "it seems to be a case for applying Inter-X Manual of Instruction for Field Squads—"  
"Eh?"

"—Section VI, Chapter Eight!"

Maybe I hadn't been at my brightest. There was the heat, the monotonous whistle and those eerie, twinkling spheres—all conspiring to prevent my mind working clearly. Yet as soon as Hartnell pointed out the position I could appreciate it quite easily—just as when he had refused to be diverted by the purplish sphere's invitation to a nice long walk.

Tubby saw the point equally promptly. "Come on, Pop. Get busy with the Mattus."

"But this is fantastic!" I said. "These things can't be intelligent! Why, they're—they're empty. You can see right through them!"

Young Hartnell grinned again. "We could see through that barrier—but it stopped us all right!— And they didn't put it there for fun, any more than Fuzzy-bubble wanted to enjoy our company on a trip to the hills."

If the spheres only knew, they had committed a tactical mistake. Opposition always made Hartnell more stubborn and determined, as I'd learned to my cost on occasions in the past. "So, obviously," he went on, "they're intelligent—intelligent life—"

"Life? Them?" I'd know a lot of queer things on a lot of queer planets, but nothing like this. Yet against my better judgment I had to agree with him. Reasoning was present in the sphere's actions—and there was that invisible, inexplicable barrier across the valley-entrance. Newly placed there, too, unless the spheres possessed some particular quality that enabled them to pass through, because we had seen them earlier dodging to and fro.

"The Mattus!" said Hartnell, a trifle impatiently. "Come on, Pop. Don't waste time."

The Mattus apparatus, of course, was what he'd meant by that reference to the Inter-X manual. Best description for the machine, I think, is an "electronic aid to telepathy." I don't know how the thing works, but the rough theory is that thought-impressions radiate like ether vibrations and when picked up by the Mattus aerial and suitably amplified their meaning can be understood. On several occasions in the past, confronted by intelligent life of various types on strange worlds the Mattus has proved worth its weight in corominium.

Sometimes, during long, weary months of space-journeying, I've taken a book from the ship's library and read about the troubles known by our predecessors in Inter-X before Professor Mattus brought out his invention. How they achieved communication with some species is nothing short of a miracle—the worm-men of Athos, for instance, or the strange creatures back on Karmah, who weave weird patterns with their tentacles. In some instances it needed years of concentration and research to exchange even the simplest thoughts.

No one must imagine, of course, that the Mattus machine made things easy, but on our last trip alone—where the research chiefs experienced delighted amazement by the fact of intelligent life existing on no fewer than four of Vega's eight planets—I had successfully established contact with the tor-

toise-men of Krellig II, the starfish creatures of Zeton and even the mobile orchids on Orbis. The gadgets were standard equipment now for all field parties, and regulations laid it down that one member of every squad must carry a Mattus fitted into his atmosphere suit. With a pair like young Hartnell and Tubby, you could bet it would be me!

Externally, the Mattus showed as a slender, telescopic antenna; internally, a thin cadmium plate rested gently on the operator's forehead at the touch of a switch. The apparatus proper fitted into a small, rectangular casing, screwed to the gravity-reactor in the shoulder-plate.

Instructions recommend that the extended antenna be "placed in close proximity to the subject's brain-case," while the operator "concentrates with full power of intellect, to the exclusion of all other thoughts, upon his expedition's peaceful intentions and the desire for cordial relationships with the subject."

No one need be particularly bright to deduce that these suggestions were penned by some stuffy old headquarters scientist sitting comfortably in his laboratory-office. Few specimens that I'd experimented on possessed visible brain-cases, although the idea was sound insofar as thought-impulses must naturally radiate more strongly near their source. Anyhow, had they kindly pointed out the brain-cases on these floating spheres I'd have been greatly obliged.

"Don't stand there day-dreaming," said Hartnell, again. "Snap out the Mattus rod and shove it in Fuzzy-bubble's face."

It was all very well for him to talk like that. He hadn't got to work the machine, and I confessed to a cold, creepy feeling every time I tried it out.

Somewhat reluctantly, then, I clicked over the few simple controls and moved slowly forward, holding the rod extended towards the sphere. I had a ridiculous impression that if I got near enough to give it a good prod it might vanish with an audible pop.

I tried to close my ears against that maddening whistle over the inter-com and concentrate, as instructed. At first there was nothing. There rarely is, of course. Not until subject and operator become mysteriously attuned is it possible to sense emotions—usually fear, distrust and hostility, mingled with curiosity.

"He's coming nearer," said Hartnell, quite unnecessarily. "Getting anything, Pop?"

"No," I said, brusquely. "Not a thing."

I stood there, ten or twelve yards in front of the others, busy concentrating. It's difficult to describe impressions received over the Mattus. Sometimes definite pictures appear, on other occasions the operator—hardly knowing how—becomes suddenly aware of what the other party is thinking. Most uncanny of all, it often seems that a tiny voice whispers across an alien, psychic void. In all cases the nervous strain is terrific and I never finish a session without finding myself soaked in perspiration.

And while my arm ached with holding out the rod and the inside of my suit grew insufferably hot and stuffy, I gradually knew a strange, hopeless depression. It was useless, of course. Either the spheres weren't intelligent or I was too exhausted to receive their mental images. There wasn't much sense carrying on. Surely I could put my time to better use than standing on the hot, bare rock of a dying world, trying to communicate with its last few inhabitants. My mind was gripped by an ineffable sadness at the futility of it all—

I jumped so violently that I bit my tongue. A dying world? The last few inhabitants? Now what in Betelgeuse could have put that into my mind?

"All right, Pop?" asked Hartnell, eagerly, seeing my sudden movement. "Managed to do anything?"

"Yes," I said, blinking away tears of pain. "I've bitten my confounded tongue!"

He told me not to waste time being funny, but to get on with the job. I might have given him quite a brisk answer, but I thought once more about those two strange impressions I'd had and applied myself again to the Mattus.

Sadness and despair were still there, mingled with slight distrust, but no definite hostility. A dying world? I could well believe it. We had seen no sign of life anywhere in the grim, silent deserts or the sluggish, ammonia-laden seas.

Then, somehow, I sensed pronounced curiosity. I stared again at the purple, shimmering sphere—like a hovering lighting ball—scarcely more than eight paces distant and wondered whether this thing could possibly have a mind. Concentrating upon a composite mental image of our journey and

eventual landing on Kardoon, I found myself sweating more than ever.

Incredulity pulsed strongly. "From another world?"

I felt my heart-beat quicken.

"And you come in peace?"

Yes, I said, we came in peace.

"Will you be able to help us—?"

"If it lies within our power."

I switched off, trembling with the effort and with the wonder of it all. Professor Mattus's machine had done the trick again.

Hartnell and Tubby saw me lower the rod. "No luck, Pop?"

"Oh, yes, it's worked all right. It seems we've got a rescue job on our hands—"

"Makes a nice change, anyway," said young Hartnell. "As a rule they're only too anxious to see the back of us."

When my breath returned I made another attempt. Fuzzy-bubble waited patiently, suspended some four feet from the ground, while his friends twinkled unmovingly on the rocks.

"Why did you keep us out of the valley?" I asked. "And how?"

The answer to the second question didn't make me much wiser. I caught something about "force-beams" that made me raise my eyebrows, but the rest was incomprehensible.

We had been barred from passing, apparently, because there lay entrance to what was described as "all that is left to us from bygone glories—our single legacy bequeathed by the Wise Ones who passed over in the Day of Cataclysm."

"There, too, said the sphere, with profound sorrow, "rests the only nursery of our species. Alas, they are now pitifully few!"

### *The Nursery*

WHILE we walked once more towards that irregular gap between the high cliffs I saw four of the waiting spheres detach themselves and float quickly ahead of us, while Fuzzy-bubble and the others acted as escort.

Unhindered now, we moved into the rocky cleft, only to find a steep, rough declivity, down which we stumbled and slid with considerable discomfort. It struck me as uncanny that for untold centuries the spheres had been using this pathway, yet the loose shale remained untrudged. I couldn't get used to the idea of things moving about the place without leaving tracks, and it wasn't particularly pleasing to see them travelling effortlessly alongside while we staggered across a rugged terrain.

The narrow defile became a winding canyon, flanked by precipices of such terrifying height that they shut much light from the lower slopes, yet eventually we emerged into another wide plain fully four miles across. In the mouth of the gorge, where going was easier, we hesitated, not knowing which direction to take.

Above the whistling which persisted in our inter-coms, Hartnell and Tubby must have heard my exclamation of alarm before they themselves were affected. Something caught hold and swung me gently but firmly to the right, almost making me lose balance. It was like being guided and half-lifted by invisible cushions—a quite different sensation from the gravity-reactors, where pressure manifests itself on the harness.

"Galloping galaxies!" exclaimed Hartnell. "Now we know what Fuzzy-bubble means about force-beams!"

"But—but how can they do it?"

He shrugged, taking matters more calmly than I did. "You work the Mattus, Pop. Why not ask 'em?"

Irritated, Tubby said: "And if they're the cause of this confounded ringing noise, ask 'em to stop it."

When I held the rod towards the purplish sphere and switched on again there was no doubt about Fuzzy-bubble's intelligence. He grasped the idea straightaway, and communication became easier, as it usually did when the parties concerned grew more attuned.

"Force-beams? They come naturally to us. We project them to do our work. Watch—"

I warned the others over the inter-com. "Look out—he's giving us a demonstration—"

A small stone ten feet away was lifted into the air, brought across without visible means and deposited gently at my feet.

"Suffering Sirius!" gasped Hartnell. "How did he do that?"

A large, flat rock, perched on end, slowly over-balanced and tilted forward, finally to crash in a cloud of brown dust.

"It must be a trick," said Tubby, goggle-eyed but sceptical.

"A trick—probably done with mirrors!"

However it was done, we were all suitably impressed.

"The force-beams are our hands," said Fuzzy-bubble. "How otherwise could we manipulate materials? Or operate the Wise Ones' wonderful machine?"

And the more we came to think about matters the more humble we felt. Throughout inhabited planets of the known universe there is one great envy among intelligent creatures—the hands of Man. With these hands he can raise vast buildings and construct great space-ships; he can operate intricate and delicate apparatus; he can make tools and turn a screw; he can grasp an object to crush it or caress the scales on a butterfly's wing. No other manual appendages are half so strong, so adaptable or so sensitive.

Yet here were strange, shining, tenuous spheres possessed of a natural instrument capable of performing many tasks beyond the capabilities of four fingers and a thumb. Force-beams could reach into a radio-active furnace to mould material there; they could hold white-hot beryllium in place beneath an electronic forging-hammer; most wonderful of all they could perform manipulative surgical operations inside a body without breaking the skin.

But one other thought brought me out in a sweat—a cold sweat of apprehension this time, by way of a change. What would be the effect of a force-beam directed against the Mattus? Might it not strike the operator into madness? And couldn't they also upset radio receivers or gravity-reactors.

Luckily, to take my mind from such morbid reflections, we passed at that moment a large, circular hole in the cliff-face—an aperture which was definitely of artificial construction, for the funnel-like sides, narrowing to a black hole about ten feet in diameter, were perfectly smoothed.

"Entrance to the Grand Halls," said Fuzzy-bubble, without waiting to be asked. "Therein lie the assembly rooms and the salon of our honoured ruler, Makkub. Yet first you shall be permitted to see the nursery—only one now remaining on Kardoon. It is a place most jealously guarded, for it contains our hope for the future." Again I sensed that strange, ineffable sadness.

For a further half-mile we skirted the cliff-face, still working a way round that circular, enclosed plain, until another narrow defile broke the jagged embasement. Upon the brink of a deep, irregular basin which fell away suddenly from this approach, we found ourselves gazing upon a scene of fantastic beauty.

The boulders and rough rocks which lined this depression were crowded with spheres of all sizes and colours. Under the pinkish sky they continually glowed and shimmered with an almost dazzling radiance. Now and again one floated free from the crowded masses, rising hesitantly into the air to be tenderly greeted by others apparently hovering over the area for just such a purpose. They bustled it carefully into a tunnel-mouth cutting the far side of the basin.

"These are our children," said Fuzzy-bubble, with wistful pride. "See—there is another born now. The nurses take it to the incubator, where the history and learning of our race will be imparted to him—"

If we had never previously been certain that the strange, maddening whistle which afflicted the inter-com was due to Kardoon's spheres, we knew it now, as we stared at those glistening clusters on the bare, rough stone. For in addition to the persistent singing sound—still so loud that only fascination of the surroundings enabled us to half-close our ears—there now came faintly in the background a delicate whispering and chirping, like the "cheeps" of newly-hatched chickens. "From the rocks?" demanded Tubby, incredulously, when I translated. "They sprout from the bare rocks? But that's impossible—"

Frankly, I felt like agreeing with him. In our various travels we had encountered many forms of life—yet every one needed nutriment of various kinds, even if they took such substances direct from the soil, as did the intelligent plants of Orbis. But stones—mere chunks of silica, without carbon, oxygen, potassium, carbon, magnesium, or any other chemical elements necessary for life?

We turned to Hartnell, usually more knowledgeable on bizarre subjects than ourselves. Strangely enough, he didn't seem particularly surprised. He started a long lecture about "autotrophic"—or self-nourishing—bacteria that had been known for centuries to exist on inorganic materials. Even in the twentieth century, he said, scientists found such bacteria at work on raw sulphur in the vicinity of volcanoes and that deposits of iron ore were formed by the activities of autotrophic iron bacteria.

"I don't know for certain, mind you," he went on, with an excessive rush of modesty, "but by the same argument why shouldn't these spheres flourish on some mineral or other. Maybe, radio-activity comes into it—"

I tackled Fuzzy-bubble on the subject. He seemed both gratified and impressed that strange creatures like ourselves could possess a knowledge of the spheres' fundamental principles. I felt we had achieved a good mark. The sphere sang shriller than ever with increased confidence in our ability to retrieve the destiny of Kardoon and emitted a flood of telepathic impressions to describe his race's mode of existence.

Once loosed from nursery rocks, apparently, the spheres had no need of further nourishment. They were charged with sufficient energy to last them the rest of their "lives," and when this quantum had been expended the shining envelopes merely disappeared into nothingness.

"Not even a tombstone to mark the spot," said Hartnell. Personally, I didn't think it a matter for levity, and said so.

Fuzzy-bubble intercepted something of young Hartnell's comment from my reply and scattered interested inquiries, whereupon I, in turn, had to describe the nature of our own mode of birth and death.

"So in your world, when an individual comes to the end of his days there remains some token that he has existed?"

I visualised for him the immense Garden of Rest back at headquarters near Zeta Saggiarius—a place of green trees and bright flowers, dotted with endless lines of little grass-grown mounds marked with white head-stones.

"His name?" inquired Fuzzy-bubble. "The place is marked with his name and with the day when he expended the living spark?"

I nodded, mentally, thinking the conversation had become unduly morbid. Moreover, I didn't tell him of those other

little forlorn mounds—isolated on alien worlds—where Inter-X men lay after giving their lives in adding to the sum of human knowledge.

"That is a very great wonder," said Fuzzy-bubble, enviously. "For me and my kind there is—nothing."

He fell silent for a time, reflecting upon these things, and in the interval I recounted the conversation for Hartnell and Tubby, while we stared at the watchful nurse-spheres hovering over the rocky basin and the little, growing bulbs clinging to their birth-stones—some delicate shades of orange and emerald, others very tiny and almost colourless.

"Once—in the glorious days of the Wise Ones—Kardoon had many nurseries. Our race poured forth by increasing thousands from the vast broods of Mehlon, along the mountainous valley of Jammele and in the fertile fields skirting our great inland lakes. On the shore beside the waters of Pakklezar they outnumbered grains of sand." He paused again. "Now—alas—we are but few. The magic of life has departed from our planet. Here you see the only remaining nursery. Soon this, too, will cease to function—unless you help us."

Not having the faintest idea what we could do about it, I mumbled some noncommittal reassurances.

This seemed to please him in a half-hearted, sorrowful sort of way, whereupon he announced that the Hour of Audience approached and that we ought to be on our way to the Grand Halls to be presented to Makkub.

"I've got to have a rest from this continual squealing," said Tubby, dejectedly. "It's ripping my nerves to rags. Can't you ask 'em if there's any way of stopping it, Pop?"

"I'll try," I said, and mentioned the matter to Fuzzy-bubble.

He seemed surprised. "You can hear us talk, too?"

"Too?"

"Oh, yes. We have all noticed those strange growling noises you make. Quite unintelligible, of course—"

"Growling?" I frowned for a moment, then understanding dawned. In some peculiar manner the spheres generated radio waves by their communication with one another, although practically none of the resulting audio-frequencies were within human register. Similarly with them, when vibrations from our inter-com sets strayed in their direction and became automatically rectified, our own sound-waves were

pitched so low by comparison that the spheres in their turn heard only the fringes of the higher registers. Consequently, these highest modulations of human vocal chords reached them as "growlings."

After I'd explained the discomfort which arose, Fuzzy-bubble obligingly took measures to quieten his companions, but whistles from other spheres in the vicinity continued, although at lesser volume.

"Well, that's a bit better," said Hartnell, more briskly. "Now what's this about a trip to the Grand Halls?"

"I gather they mean that tunnel affair we passed just along here."

"Hope it's not too dark and narrow," said Tubby, still in a mood of depression. "I've got my claustrophobia to think about—"

We were all to have much more than that on our minds before very long.

We halted at the point where the smooth rounded, funnel-shaped entrance bored into the cliff face and stood staring into the ten-feet diameter of blackness at its end. Fuzzy-bubble and three other spheres preceded us, taking on startling brilliance once their natural colours became shielded from the light. They sailed easily and majestically inside. We, for our part, halted on the brink, seeing nothing and wondering along what path we must pass.

Hartnell slashed the clear, white beam of his beryllium torch across the aperture, bringing simultaneous gasps from Tubby and myself. It showed no end to a vast, subterranean space inside. Then he depressed the lamp to ground level and we saw how the rock curved steeply away from our feet to disappear in unknown depths.

"Hm," said Tubby, gesturing to the spheres. "All very well for them—but how in Andromeda do they expect us to get through?"

"Climb down with the Karlin lines, I suppose," said Hartnell.

I started convulsively. "You know I've got no head for heights—"

He clicked his tongue in mock-disgust. "One with claustrophobia and another who wants to walk on the flat always. What's Inter-X coming to?"

And all the time—while I watched him uneasily—he was

taking out the business end of an immensely strong two-mile Karlin line that always struck me as having no more strength and substance than a strand of gossamer, yet which possessed a tested breaking strain of more than two tons.

He hitched the fastening to the rocks, heaved himself into the aperture and used the line to support himself in an almost horizontal posture while he walked carefully backwards down the smooth, curving wall.

I could tell from Tubby's set expression that he didn't like these sort of antics any more than I did, but he hitched the Marless staple of his suit on the line and said, "Well, here goes. At least you'll have something soft to fall on, Pop, if you happen to come unstuck."

Which bright remark, of course, didn't cheer me much. "Still going down," came Hartnell's voice over the intercom. "Getting on for a hundred and twenty feet. I think the wall's less steep now."

Once I had lowered myself a short distance below the rim of that entrance aperture, light from outside became shut off. An incredible way down, Hartnell's torch cast vague, flickering reflections to the higher part of the line where I clung; up above, the attendant spheres floated like great, multi-coloured moons in a starless sky. Their shrieking inquiry as they obviously discussed our queer method of progression cut through my mind like shrill, mocking laughter. No doubt the telepathy machine might have let me overhear a good deal of amused sarcasm, but I had other uses for my hands than waving a Mattus rod.

"I was right, Pop," said Hartnell. "I'm practically walking upright now. The floor's almost level."

A few minutes later, panting with relief, Tubby and I joined him. Exploring with the torch once more, however, showed how a further curving incline lay ahead, growing progressively steeper.

"Why," I said, "the confounded place is hollow—just like the inside of a sphere!"

Hartnell grinned. "We don't seem able to get away from 'em, do we, Pop?"

As it turned out, my description was not wholly accurate. However, the curving wall farthest from the entrance proved to rise only a comparatively short distance before producing a further circular aperture, which led into yet another great



cavern. Briefest analogy, perhaps, would liken the caves to a series of eggshells laid end to end, with inter-communicating holes punched between.

Moreover, these further apertures proved climbable without use of the Karlin line, and for what seemed an eternity we kept climbing up one curved slope, heaving ourselves through the hole slithering down the other side, while all the time those damned spheres accompanied us effortlessly.

Then, at last, an approaching tumult sounded over the inter-com—a whistling and singing so intense that it numbed the mind and set teeth on edge—and we knew that somewhere near at hand in the Great Halls a crowded assembly of Kardoon's eerie, inorganic inhabitants awaited us.

"If they'd got the slightest sense of decency," panted Tubby, "they'd have used those force-beam affairs to give us a lift—"

A purple sphere swooped from the heights and confronted us. It was Fuzzy-bubble. I switched on the Mattus.

"Now I must leave you," he said, "to take my place with Makkub and his councillors. My friends will escort you to the Presence at the appointed time."

#### CHAPTER FIVE

##### *"It Will Cost a Thousand Lives—"*

WHILE we stood there in the pitch darkness—for although the hovering spheres glowed brightly they cast no reflections into the depths of the cavern—I experienced my first doubts. I didn't like the tone of Fuzzy-bubble's last remark. He had spoken, as it were, of "The Presence"—in definite capital letters. Although fairly high up in the counsels of Kardoon—I imagined he must have been sent as an official investigator, once news of our approach was received—he obviously stood in some awe and apprehension of this Makkub, and we knew from experience that rulers who inspired such frame of mind among their subjects usually proved to be arrogant and overbearing dictators of some kind.

The terrible row in the inter-com prevented me from thinking clearly, but we hesitated to switch off because of need to speak to each other at any moment when the summons came. Fortunately, as matters turned out, we didn't have to endure the uproar for long, because, without warning, the noise faded and died, letting the blessed relief of silence pour over us in healing waves.

"Get ready," said Hartnell. "This is it." He paused a moment. "You know what's happening, don't you? Somewhere up there—in the throne room, or whatever they call it—your pal Makkub's made his ceremonial entrance and they've all fallen into a respectful silence."

"I don't know," remarked Tubby, thoughtfully, "that I altogether care for the sound of Makkub—"

Neither did I, for that matter, and I didn't see why he should be described especially as my "pal."

We never knew whether Fuzzy-bubble intercepted Tubby's previous remark and realised with remorse that his actions weren't those of a perfect host, or whether no one liked to keep Makkub waiting while we sweated and struggled along steep, curved banks. At any rate, the next we knew was a cluster of spheres suddenly appearing through the aperture in front of us and an alarming sensation of being raised into the air towards them.

"Galloping galaxies!" gasped young Hartnell. "They've got us in the force-beams!"

It wasn't exactly pleasant to hurtle through the darkness of those vast caverns, not knowing what lay immediately ahead. Particularly enough, I couldn't tell at what point the force-beams gripped me. There was no particular feeling of being either pulled or lifted—merely a swift, effortless progress, during which I had the uncomfortable thought that we might be accidentally dashed against the rocks. Undoubtedly it was even more unpleasant for Tubby, because the spheres handling him lacked co-ordination at the start and tumbled him over in the air two or three times. Spluttered profanity reached us over the inter-com, but Hartnell said it was only poetic justice.

Very soon, however, we saw two large green globes guarding an entrance move respectfully aside as our cavalcade approached. We sailed inside and there burst upon us a scene of such outlandish beauty and curiosity that we ex-

claimed aloud in sheer amazement.

In what must have been the most gigantic, ellipsoid cavern of that entire subterranean system were assembled untold thousands of spheres, banked upon one another in layer after layer, like prodigious, shining masses of soap-lather. Their colours, winking and glowing, changed kaleidoscopically and unceasingly.

But we were whisked quickly through this multitude and gently deposited in an open space where spheres of obvious importance rested upon a weirdly shaped structure that graded them according to rank. Situated centrally were three solid, white obelisks, the principal pillar about six feet high and the others slightly shorter. On these rested the biggest globes we had seen so far, and they perched there so pompously and incongruously that I was seized with an insane desire to giggle. Thrones for counsellors of lesser importance extended in a semi-circle to either side—always this emphasis on circles, spheres and ellipsoids, I noticed—and I managed to recognise Fuzzy-bubble an instant before he moved into the area where we stood.

Yet when I looked again at the great red sphere occupying the central obelisk I never felt less like laughing. It might well have been a huge, round, menacing face staring back at me with hostile curiosity. I understood quite well in that moment why his arrival had brought a sudden hush to the assembled populace, eliminating the awful, high-pitched singing from the inter-com. None of us had much desire for talking—even young Hartnell and Tubby, who have metaphorically thumbed their noses at puffed-up pomposity in many corners of the universe. We sensed no definite, active evil—merely guarded hostility and an unmistakably powerful personality. I forgave Fuzzy-bubble for speaking of "The Presence" in capital letters. Without any particular enthusiasm—but duty is duty, after all—I switched on the Mattus.

In the instant that contact was made there crowded upon me all the usual impressions of such occasions—curiosity, coupled with a certain amount of revulsion at our personal appearance and a small amount of natural enmity. Yet it was necessary for me to make an effort to shut out extraneous images and concentrate upon the principal characters.

Fuzzy-bubble, after bobbing several times respectfully at the foot of Makkub's tall, narrow obelisk, embarked on a

speech of explanation, setting the inter-com faintly squeaking and whistling again.

"O mighty Makkub," he said—and I hope it's quite clear that in all our associations with the spheres of Kardoon no word passed, but that I am roughly translating mental impressions and emotions into understandable language—"these are the strange creatures who have come from another world and whom I have brought into your presence."

Even without the Mattus I could have sensed the attention of that multitude focused upon us like thousands of great, coloured eyes.

"In many ways they are inferior to us—yet in the crisis which has come upon our beloved Kardoon I would be failing in my duty as Counsellor of Scientific Inquiry if I did not ascertain whether some of their knowledge might be of use to us."

Mention of "the crisis" brought a respectful hush, followed by a vague murmur of agreement with Fuzzy-bubble's succeeding sentence. He referred, of course, to the way his race was dying out.

"In preparation for this, I have allowed the strangers to gaze upon our precious nursery, that they may understand the manner of our birth, so different from their own—"

On either side of Makkub, occupying the two slightly smaller obelisks, rested a green sphere, and another of bright orange. The green sphere bounced up and down with rage so violently that for one absurd moment I feared he might puncture himself, but his paroxysms of fury pulsed through the Mattus with sufficient strength to make me definitely alarmed. "How dared you!" he roared. "How dared you imperil the future generations by allowing these gross animals to gaze into our sacred ground? Their filthy radiations may spread poison—"

The green sphere—his name was Pakkan—had done a good job of spreading poison, too, and the multitude hissed with horror.

"No, no," said Fuzzy-bubble, hastily. "That is not so! I, personally, vouch that such a thing is impossible—"

He was a bit late with his protestations, however, and the damage had been done. I saw Makkub's crimson perimeter vibrating visibly. "If these creatures' force-beams have con-

taminated our one remaining nursery," he boomed, "they shall surely answer to me—to me, Makkub!"

Fuzzy-bubble trembled in turn—with unconcealed apprehension. "Pardon, O Makkub—but these creatures possess no force-beams. In that respect they are primitive and incomprehensible—"

"Exactly!" roared Pakkan. "You admit you do not understand them! Therein lies the danger!" He appealed to the council. "Is not that what I said?"

"I crave permission to explain," began Fuzzy-bubble, with no small agitation. "I have learned certain things, which our counsellors should know—"

Hartnell came on the inter-com. "What in Altair's happening, Pop? Is everything all right?"

"Why are they bobbing about like that?" asked Tubby.

I told them matters weren't exactly promising, but that Fuzzy-bubble was doing his best.

"Well, don't just stand there," said Hartnell, rather unreasonably, I thought. "Say a piece on your own account and get Fuzzy-bubble to interpret—"

Frankly, the idea of breaking in on the discussion uninvited never entered my head over-awed as I was by the powerful personalities of Makkub and Pakkan. "All right," I said. "All in good time."

As it turned out there was no need to do so. That business of our being able to leave a marked resting place after death, instead of merely vanishing into thin air, caught Makkub's imagination very vividly—in the same way that Fuzzy-bubble had been impressed.

"It has been a source of sorrowful reflection to me," he told the assembly, "that once the vital spark is expended there will be no means by which my loving subjects may express their gratitude for all the unremitting care I have devoted to their interests, for recollection—even of great ones—grows dim through the generations. But if it is possible to learn from these strangers how a permanent memorial to my honour may be established, perchance their arrival here may be turned to good account."

Whereupon I breathed more easily and Fuzzy-bubble positively swelled with relief. It was the old vanity and egotism showing itself, even out here on Kardoon, in the uttermost limits of explored space. Pakkan glowed even greener with

chagrin, but the bright orange sphere resting on Makkub's left spoke up to consolidate whatever position he held.

"I—Zakkar—pronounce our ruler's words to interpret a wish that rests in the minds of all of us," he said, importantly. "Therefore I recommend to the council that these three monsters who have the temerity to travel from other worlds to investigate us—" he sniggered at such a foolish presumption on our part—"shall themselves be investigated."

I didn't like his phraseology over-much and Makkub pounced on the far-from-flattering description. "Monsters are they, indeed. I heard just now the uncouth growling noises by which they communicate with one another. Obviously, they must be rated far below ourselves in culture and natural gifts—we who are descendants of the Wise Ones and who have been entrusted with their wonderful heritage. These strange creatures exceed us only in their ability to leave a permanent memorial of themselves. This knowledge they shall be forced to transfer to us." He paused, while a tense, hushed assembly waited for his next words. "It is right that I, Makkub, should experience such honour. Then, when I am gone, there will be a place of pilgrimage in memory of me, where all men may come to worship."

It was quite dreadful, of course, and I really felt like taking Hartnell's advice to join the discussion.

Fuzzy-bubble bounced up and down in distress and took his life in his hands. "The unborn generations—" he bleated, pitifully. "Should they not help us there, too, in the study of life-giving rocks? Although ignorant, perchance we may find aid—"

"Our ruler has given his decision," said Pakkan, in an awful voice. "How dare you question it?"

Makkub's over-weening vanity was shaken by this interruption and he swelled visibly with rage.

"It would be an even greater memorial," added Fuzzy-bubble, with remarkable presence of mind. I held my breath, waiting.

"Makkub—the Father of His Race," said Zakkar, reflectively, as though quoting some fulsome epitaph. "Truly a lasting tribute." In that moment I forgave him his impolite descriptions of ourselves.

And it became evident that Makkub was pondering the situation, too. His tenuous outer envelope shimmered and

blazed like a spherical rainbow for fully half a minute, dominated all the time, however, by his natural crimson hue.

At last he made up his mind and decided to kill two birds with one stone. "Hear, all men," he pronounced. "None can deny that the crisis which is upon Kardoon gathers speed, calling for decisions of unusual solemnity. Therefore do I—Makkub—by reason of the power vested in me, decree that the Day of Revelation shall be advanced two years, the ceremonies to take place at the next dawn. Then shall we know without fail whether these strangers can prove helpful to Kardoon and its people."

A great, tremulous sigh echoed round the cavern from all those crowded, hovering spheres—a sigh of mingled fear and wonderment. Frankly, I hadn't the faintest idea what it was all about.

"O wise Makkub!" exclaimed Zakkar, profoundly. "How great are thy decisions! How eminently does our ruler tread in the footsteps of those Wise Ones who are gone before!"

Pakkan obviously had something further on his mind. "The price—"

"Such an important ceremony must not be stinted," said Makkub. "It is essential that we know what the future holds. It will cost a thousand lives—but they will be well spent!"

## CHAPTER SIX

### *Legacy of the Wise Ones*

THE assembly in the Great Hall had dispersed. Six small blue spheres lifted Makkub from his throne and carried him away, followed by Pakkan and Zakkar, to vanish through an aperture in the cavern's far wall. Counsellors who had occupied positions on the semi-circular wings of that weird structure departed similarly, while the vast, chattering multitude left by the way we had entered. Their shrieking conversation made so terrible an uproar in the inter-com that

I switched off hurriedly, and I saw by their grimaces that Hartnell and Tubby suffered in the same way.

The glow cast by those thousands of spheres faded rapidly and at last we found ourselves alone in the darkness, save for Fuzzy-bubble. I turned the inter-com control again and discovered everything to be fairly quiet.

"Well, now," said Hartnell, patiently, "maybe you'll tell us what all that was in aid of?"

"Me," said Tubby, "I'd like to find some corner where I could sit down comfortably."

Peculiarly enough, Fuzzy-bubble expressed no particular surprise when I translated this last request.

"That is understandable. I have already made arrangements so that you may have privacy."

He led the way behind that strange, white throne to a series of tunnels. In shape and construction they resembled the huge caverns through which we had passed earlier, yet their roofs at the highest point extended only a few feet above our heads. There was barely room for us to step through the small, circular entrances between them.

At length, Fuzzy-bubble showed us into an eggshell-shaped apartment—with highly polished walls, but no item of furniture.

"Scarcely a home from home, is it?" inquired Hartnell, flashing a torch to examine the place. The light, incidentally, excited the sphere's especial interest, for although the inhabitants of Kardoon possessed ability to see in the dark, they could also perceive illumination.

"It's a place, anyhow," said Tubby. "And Suffering Sirius—am I tired!"

Personally, I wanted to know more about this "Day of Revelation" business. When I broached the matter, Fuzzy-bubble's demeanour held considerable awe and reluctance. "It is our legacy from the Wise Ones. A great and terrible mystery."

As I sat there holding the Mattus rod, with Hartnell and Tubby dozing by my side, trying to make themselves comfortable on the awkwardly curved floor, I learned, in a series of well-ordered mental images, of a strange civilisation built on Kardoon untold centuries ago. Even at that time the planet held no vegetable or animal life, and the spheres came spontaneously from sterile rock—sterile so far as we humans

know the meaning of the word, yet possessing rare chemical qualities that produced self-contained globes of force, capable of independent movement and, eventually, thought. Once mature and loosed from their birth-stones, the spheres required nothing—neither shelter nor food nor comfort nor sleep. They did not build or cultivate the land because there was no need—and nothing to grow, anyway. They occupied their lifetimes organising a society and investigating scientific phenomena; when the quantum of energy with which they had been born was expended, they merely vanished.

I had a lot of questions for him, of course. "Are your people happy in their pursuits?" I asked.

"Happy?" said Fuzzy-bubble, in some bewilderment. "What is that?"

Not wishing to become involved in side-issues, I tried another tack. "How are your rulers chosen? Makkub, for instance—?"

He seemed surprised and at the same time a little disappointed with my powers of observation. "Makkub? He is a red sphere, of course. They are the natural rulers. When the nurses observe a red sphere emerge—it happens roughly every seventy years—it is taken to a special compartment to await the time when he must assume his responsibilities—"

"Everyone accepts this? Kardoon has no—rebels?"

He didn't like the question very much. "No, no—we are all united behind our beloved Makkub." He paused, and I gave him credit for frankness. "Now and again some malcontent arises. It is not good for order to be disturbed. Rebels and criminals are removed to the punishment deserts beyond the Great Sea."

I wondered what happened to them there. How could you punish a thing that didn't feel pain or discomfort? Or imprison a creature that found no hardship in confinement?

"They are obliged to labour in the mines or transportation squads—heavy, arduous work which quickly expends their lives. Gross cases are exterminated, of course—"

"Exterminated?"

"If they do not obey—although most of them do—they are turned over to the executioners, who interlock their force-beams inside a criminal's envelope and tear it apart, bringing instant death."

I remarked that, in turn, it must be hard lines on the executioners, who obviously had to exert a good deal of their own energies.

"Oh, they are privileged, of course. Many duties are excused them."

I began to understand one or two matters which had previously escaped me. Their precious Makkub, for instance, mustn't waste energy even in moving. That was why six blue spheres so tenderly carried him from the obelisk-throne. Every action by the spheres used up a portion of precious life-force and brought nearer their day of dissolution. I supposed that in a way—at the same time more crude and yet more complicated—we ourselves came to an end similarly, provided we escaped disease or violence.

"But," I said, "these bygone centuries when your people filled the planet's surface. What did they achieve? To what end was all their effort directed?"

The answer came with a certain negative sadness. "Save for one thing—none knows! There came the Day of Cataclysm and—"

Fuzzy-bubble couldn't throw much light on this disaster, but I gathered that—whether it was due to some unimaginable war or cosmic upheaval—Kardoon became to all intents and purposes uninhabited. Moreover, the teeming nurseries lost practically all their lifegiving qualities and those that were left gradually petered out until, as we knew, only one remained. Most awful aspect of all, perhaps, lay in the fact that none was present to pass on knowledge to the new-born adults, so that progress had to begin again from scratch.

Yet gradually the newcomers re-explored the stricken planet, made laws and evolved customs. They commenced once more to probe and inquire—and they discovered a very curious thing.

"While building operations were in progress," said Fuzzy-bubble, "an engineer stumbled into an unknown cavern—"

I interrupted. "But I thought you had no need of shelter or buildings—"

"You have already seen our buildings—the Great Halls and the throne-room. There are many others. Although we ourselves require no living quarters there must be cover for our laboratories, lest storms disturb apparatus or dust drift into our machines. Moreover there are times when large

numbers of people must assemble near these machines, so that accommodation is required—"

I felt my head swimming again, as it had done when that shrill singing over the inter-com reached unendurable intensity. Machines?

"Into an unknown cavern," continued Fuzzy-bubble, picking up the threads again. "It still exists. It is our only link with the Wise Ones. Therein he discovered a strange engine which baffled our best scientists for many generations. Now, however, we have learned to operate it, although imperfectly. We call it the Machine of Revelation."

For quite a long time I thought about waking Hartnell. This was more in his line than mine, but eventually I decided that a third party on the Mattus might make affairs more confused than they were already. Besides, I'd had an inspiration of my own. "Is this anything to do with the Day of Revelation?" I asked.

"Oh, yes. That is the day—once every ten years—when the Machine may be operated."

"And the next occasion's been advanced to—tomorrow?"

Now the Mattus is undoubtedly a wonderful instrument, but in certain ways it possesses strange defects. All this time, while I had been translating the story into our own language, it had been pressing into my mind a torrent of hazy mental pictures and mysteriously acquired knowledge in order to carry out its job of communication. Yet I had no idea what the Machine looked like or how it worked or what purpose it accomplished. Perhaps Fuzzy-bubble himself didn't know—

And then I grasped the explanation. I switched off hurriedly, not forgetting that the Mattus operates both ways and the sphere would otherwise have learned of my sudden doubts. Fuzzy-bubble was afraid—not only of the legendary Wise Ones and of the Machine itself, but of something else. It concerned the Machine—of that I was certain—but what could it be?"

I switched on again. If Fuzzy-bubble had missed my attention during this brief period, he gave no sign.

"The Machine," I said. "What does it do?"

He seemed distinctly uncomfortable and embarrassed. Then, very slowly, half-unwillingly, he said, "It enables us to foretell the future—"

And with that I had no hesitation about waking Hartnell.

I grabbed his arm and shook him madly, switching on the inter-com and yelling at the top of my voice. I heard Tubby jump convulsively and bump himself on the hard stone floor.

"Great Virgins of Vega!" said Hartnell. "What's happening?"

"Makkub popped off or something?" demanded Tubby.

"Listen!" I said. "That Day of Revelation business—it's a revelation, all right. They've got a machine that goes ahead in time!"

For a moment astonishment slammed them into silence.

Hartnell laughed and said: "Now I've heard everything!"

"I've always wanted to take pictures of the day after tomorrow," said Tubby, disbelievingly.

"Well, that's what Fuzzy-bubble's just told me," I said, with more than a hint of stuffiness. "I thought you'd want to hear about it instead of snoring your heads off—" How they could have gone to sleep in our present circumstances was entirely beyond me—but they did, and they definitely snored.

"Sorry, Pop." Hartnell's voice held a note of apology that mollified me somewhat. "Now tell us again—slowly."

Afterwards, of course, they were both eager to know more, so I contacted Fuzzy-bubble again. "The future? How far into the future?"

The difficulty, I gathered, lay in the fact that they did not know how to operate the machine efficiently. Either the apparatus had deteriorated during long centuries of inattention or its principles were imperfectly understood.

"Sometimes a few hours, sometimes a few days," came the reply.

Hartnell frowned reflectively. "These bubbles are intelligent, all right. See what they're going to do? They don't know whether we can help 'em or not, so they're going to find out what we may get up to while we're here—"

A good many objections came to mind. What guarantee was there that the machine told the truth? If it portrayed some unpleasant happening, couldn't measures be taken in advance to avert it? And if, as a result, a particular occurrence didn't materialise after being foretold, how could the spheres claim that the future was predicted accurately?

"It reminds you of the old joke," said Hartnell. "The man who said if he knew where he was going to die he'd take good care never to go there—"

But Fuzzy-bubble swore that their holy relic's truth had been corroborated every time. "To the farthest reaches of memory," he said, "the events it depicts have come true."

The entire affair began to give me the creeps. I liked it even less when he explained how the apparatus worked.

"In the days of the Wise Ones, it is said, they looked into the future over several years. With our present depleted population we dare not afford such expenditure—therefore the ceremonies are limited. A thousand lives are all that can be spared tomorrow—"

My spine tingled coldly with horror and I began to sweat again. Was this what Makkub had meant?

Fuzzy-bubble caught something of my reaction and seemed surprised. "You should not pity them," he said, with the first rebuke I had known him utter. "It is an honour to be chosen to operate the Machine of Revelation. There will be no lack of volunteers—many will be turned disappointed away. Even when the Wise Ones demanded countless millions, many more were prepared to make the sacrifice than were needed."

"Well," I said, helplessly. "If you put it that way—" After which I tried to find out something more about the machine. The difficulty, as I saw it, lay in what might be described as "focusing", the thing. Apparently it presented glimpses of future events in a series of disjointed pictures, which, in Hartnell's words, were "apt to dodge about a bit." Focusing was therefore necessary in four dimensions—length and breadth, to provide single-plane illustrations; depth, to determine the point on the planet's surface where these events were due to take place; and, finally, in time. I could well believe that manipulation might prove tricky. And all the while this fantastic apparatus must be fed with concentrated force from living sacrifices.

At last Fuzzy-bubble departed, announcing that in the hour before dawn he would call to escort us.

Hartnell yawned and looked at his watch. "Another four hours I make it, Pop. I'm going to catch up some sleep. Doesn't seem much else we can do."

But I remained awake a long time. If, in that moment, young Hartnell had known what sort of pictures the Machine of Revelation was due to produce, I don't think he would have got much sleep, either.

*"We Who Die Salute the Wise Ones!"*

WE awoke in the darkness to see Fuzzy-bubble hovering like a ghostly purple disc some few feet away. I switched on the Mattus. "Come," he said. "It is almost time."

Hartnell sat up on the curved floor, rubbing himself ruefully. "I've slept in more comfortable places than this, Pop."

"Hope there's nothing strenuous on the programme," said Tubby. "My back's absolutely numb—"

Mine was, too, but we couldn't spare the delay of useless moaning and groaning. "Let's get moving—"

We progressed slowly through those pitch-black, egg-shaped tunnels, guided by Fuzzy-bubble's dim radiance. "Soon," he told me, "we shall reach the research laboratories—"

I raised my eyebrows.

"That's a new one," said Hartnell. "What are they busy researching after?"

The sphere's reply was suitably solemn. "There is only one subject that interests the rulers and the people of Kardoon—methods of increasing the population, thereby saving our race from extinction."

Very much tempted to remark that throwing away a thousand inhabitants because of Makkub's idle curiosity wouldn't help the situation a lot, I decided to stay silent.

After a while, Fuzzy-bubble said: "Now we arrive. I can explain nothing to you of what proceeds, save that our chemists try to solve the secret of life—how it is possible for our people to spring forth from one particular basin of rock while other basins, exactly similar, produce nothing. Once that problem is solved our difficulties are ended."

Here was something else to keep quiet about, for biologists throughout the known universe had devoted their labours for centuries to such a quest. As with the singing spheres of Kardoon, they had nothing to report.

Now the caverns became more elongated, and for the first

time since descending into these subterranean depths we saw—by the light of yellow and orange spheres working there—flat surfaces. Despite their craze for curves, the inhabitants had been unable to devise any sort of bench or table that conformed to their natural preference. For a start it must have exasperated them to have objects simply rolling all over the place.

But level blocks of stone lined the tunnels where we walked, and on them rested the craziest, most complicated and most inexplicable array of apparatus I had ever dreamed of. All I could recognise as normal objects in a laboratory of that kind were small, jagged pieces of brown rock, lying in stone pans. So far as I could see, the only purpose served by the apparatus was to hold various substances. Crushing, heating, moulding and mixing operations were performed by those inevitable force-beams, after which the material merely rested in tubes or open basins until ready for the next process. Here and there queer flashes occurred, whereupon the Mattus unintentionally conveyed to me the workers' reactions of disappointment or gratification.

In any case there was no time for long-winded explanations, and Fuzzy-bubble hurried us along the laboratory corridors to a larger cave, where we had to turn on the gravity-reactors to climb a pronounced gradient, and eventually into another gigantic hall lined with innumerable spheres drawn up in two main sections.

"On the left," he said, "are those shortly to be honoured."

I looked with some compassion upon the sacrificial throng. There seemed nothing to distinguish them from any other spheres we had seen floating through their underground halls—no special sizes or colours—and I wondered vaguely how they had been chosen.

"On the right," continued Fuzzy-bubble, "those selected for the duties of High Escorts—" He broke off. "We must now join in the Ceremony of Tribute. The Makkub approaches!"

He came in, borne aloft by the six blue spheres, accompanied by Pakkan and Zakkar, and straightway launched into a florid speech about the importance of the occasion in Kardoon's history and how their noble sacrifices would never be forgotten. My eyes kept roving up and down the lines of waiting spheres and I felt slightly sick. There seemed many more than a thousand among the crowd due for "slaughter."

Then he moved off again, through some aperture at the end of the hall, and the entire assembly commenced an intolerable screaming and ullulation of praise. Fortunately, Fuzzy-bubble indicated that we should follow the principal party and distance lessened the uproar somewhat, or we would surely have had to shut off the inter-coms.

An atmosphere of tense, reverent expectation saturated the Mattus. Despite our previous conversation, I had really very little idea of how this Machine of Revelation would appear or what might happen when it commenced to work.

"Why don't they get on with it?" demanded Tubby, in a low, strained voice. Whatever his inner feelings, he had his mind on the job, however, and I could hear the built-in cameras of his suit softly whirring.

Heaving ourselves into the inevitable circular entrance, with steeply curving walls on either side, we stood upright to see that only a limited number of the elite were permitted to witness the demonstration. Broadly speaking—although we had no definite means of recognition—the audience was confined to Makkub, Pakkan, Zakkar and the counsellors who had perched with them on that queer throne.

Then we turned to inspect the Legacy of the Wise Ones.

"Now what in the name of Perishing Polaris is that supposed to be?" said young Hartnell, in a low voice.

I wrote earlier that Kardoon's story was far from unique in the records of the universe—how on many planets there must be relics of past civilisations long since overwhelmed by catastrophe, leaving no trace save a crumbling monument, an indecipherable scroll or a strange apparatus to remind later generations of their vanished glories. We ourselves had experienced such things in the light-machine left by the Old Ones of Krellig II and the weird oracle which made laws for the inhabitants of Fellik. Here, also on Kardoon, rested an incomprehensible engine—and the very sight made us marvel that the spheres even guessed its purpose, much less learned how to operate it.

The Machine of Revelation occupied the entire end of the cavern. It stood fully fifty feet wide, forty feet high and extended as far back as we could see. No attempt had been made to shield its working parts, and they rose in tier after tier to the roof—thousands of dead-white coiled tubes, looped into one another by rows both vertical and horizontal, heaped



one upon the other in masses, following no particular pattern but mounted in ledges of polished stone unlike any we had seen before. From the centre of this maze stretched two convoluting cables, ending at the foot of a white, upright rod about five feet high—almost similar, in fact, to the “throne” upon which Makkub had squatted. The rods, in turn, were placed about five feet apart and wedged into two large pillars of that same unusual stone. Only one other part of the machine could be definitely distinguished—a trumpet-shaped tube, some three feet in diameter, which curved into the bowels of the machine. Its orifice opened somewhere near the door by which we had entered the hall.

I looked at the great, complicated mass of apparatus that had squatted there through an incredible span of centuries and felt myself grow cold.

Four spheres—two mauve and two pale lemon—moved forward to rest on either side of the upright rods. “They are the operators,” said Fuzzy-bubble. “It is their duty to focus and control the machine to best advantage when the ceremony begins.”

The sensation of tense expectancy became insufferable. We were all waiting—waiting. I felt as though I were waiting for an execution.

Then Makkub began a long, ceremonial explanation of why we were there earlier than usual—“Just as though everybody didn’t know already,” said Hartnell—and a good deal of ritual bobbing, weaving and gliding ensued.

After this, his six blue bearers brought Makkub to a position immediately in front of where we stood and he addressed me directly through the Mattus. “Now, O strange and inexplicable monsters,” he said, “shall we see whether any powers you may possess can be employed for the welfare of my people—whether your arrival in our domain is to prove good or evil.”

Obviously, Fuzzy-bubble had told him the purpose of the Mattus rod, and I thought rather indignantly that he might at least have warned me. However, Makkub didn’t seem to expect comment—I was too overwhelmed by surprise and by his arrogant personality to give one, anyway—and moved his entourage to one side. The climax was due to begin.

Immediately, a sphere floated through the aperture from the outer hall, bobbed slightly as though in homage to Mak-

kub and cried: “We who die salute the Wise Ones.” Then it darted into the queer, trumpet-shaped tube. I felt my heart thud in sympathy, and nausea welled hot and bitter in my throat. Then another sphere appeared, bobbed briefly and followed the first. Then a third . . . and a fourth . . . and a fifth . . . and a sixth—all following at intervals of about two seconds.

We waited, hardly knowing what to expect.

The masses of coiled tubes in the lower part of the machine glowed first—mainly crimson and purple, as though power caused them to become red-hot. The sacrificed spheres began to move faster and I saw pastel shades of rainbow radiance spreading throughout the apparatus until the entire, massive edifice pulsed softly with light.

“Very nice, I’m sure,” said Hartnell. “But what’s it supposed to do?”

I watched for a little while in the hope that I might learn something by following the operators’ movements, then cursed myself for a fool. There were no visible controls, of course—the four spheres manipulated hidden, internal sections of the contraption by means of their force-beams.

And then the Machine of Revelation—apparently warming up—commenced to work. First sign manifested itself as a vague, purplish radiance creeping along the upright rods. It grew in volume, thickened with white fumes and gradually spread across the gap. Within a matter of seconds I could have sworn it solidified, forming a tangible plate or screen five feet square, opaque as floating cloud. And upon this background faint images began to form.

“Now,” said Fuzzy-bubble, in a low, tense manner, “comes the Moment of Truth.” Coloured lines flashed suddenly on a small plaque below the upright rods. “It is the second day—”

We recognised the Kardon landscape quite easily, with its brown, inhospitable cliffs, although the precise location escaped us. From a break in the jagged rocks poured spheres by the hundred, urgency demonstrated by their crowded, jostling, agitated flight. Then the picture faded.

“Well,” said Hartnell, drawing a deep breath, “that might be anything—”

The coloured lines changed hue. Fuzzy-bubble came on the Mattus again. “It is still the second day—but rather earlier, I think.”

We gasped involuntarily as the screen brought forth with particular clarity a view of the Great Halls, crammed with populace whom Makkub was apparently addressing. Hues were vivid, details perfect, and to heighten the effect the picture took on in some mysterious way a semblance of three-dimensional solidity. Next instant it had faded into milky mistiness.

"The operators," explained Fuzzy-bubble. "They are having difficulties—"

"They did very nicely just now—"

Scene Three materialised—very similar to the first, except that this time swarms of spheres flocked back through the cleft in the rocks.

"Mission accomplished," murmured Hartnell. "Wonder what they've been up to—"

I asked Fuzzy-bubble about the time, but apparently the coloured line indicator had failed.

Sacrificial spheres flung themselves recklessly into the tube, hardly stopping to make their obeisance. I wondered how many were now left of the original thousand.

But the succeeding picture drove away thoughts of anyone save ourselves—for there we were, sitting in a corner of the rocks and looking out towards the brown, desolate plain. Seven or eight spheres clung to the cliff-face above us in a long line. I thought, somehow, that we looked rather forlorn.

The scene flickered and dissolved, to be replaced on that unholy screen by a representation which set my scalp crawling with terror and spun my mind into a dizzy, unbelieving whirl.

For we gazed upon an unmistakable Kardoos landscape—away from the rugged cliff-line this time. The plain stretched away into brown affinity under that uneasy, pink sky. In the foreground rested three mounds of small rocks, measuring about six feet long and two feet wide. At the head of each mound was placed a small slab of some flat, dark material, and as the screen sprang for an instant to that same brilliant clarity which had marked the third essay by the Machine of Revelation, I distinguished, through a haze of horror, certain significant words.

The marker on the first mound read: Francis G. Hartnell, Inter-X 2213/78.

The second: Harold Goss, Inter-X 2212/140.

The third: Jon J. Deegan, Inter-X 2213/37.

The vanished Wise Ones of Kardoos had constructed an apparatus with power to represent events that had not yet occurred—a machine that was guaranteed by long experience to be accurate in every respect. And it had pictured for us our own graves!

## CHAPTER EIGHT

### *Under Sentence of Death*

ONLY the dimmest recollection remains in my mind of what happened when that dreadful picture faded from the screen. All counsellors seemed to understand its significance—we had to admit the spheres were nothing if not intelligent—and set up such a horrible screeching and whistling of discussion that I was obliged to switch off the intercom. Then I found myself hustled from the cave by pressure from force-beams, staggering and stumbling along tunnels until finally thrust into the alcove where we had spent the night. We lay there for quite a time, collecting our wits and getting our breath back.

At last, young Hartnell sat up and said: "Well, Pop—what are we going to do to prove that machine a liar?"

I felt very depressed. "Is it a liar?"

"It'd better be," said Tubby. He wrinkled his nose distastefully. "I've seen some planets in my time—but this is the limit, so help me!"

"I could imagine better places to be buried on," said Hartnell. "The point is—I'm not anxious to be buried anywhere. Where's the catch? Could they fake that gadget in some way? If so, what are they up to?"

"Fuzzy-bubble says it always tells the truth," I reminded

him, discouragingly. "I'm ready to believe him, too. After all, how can they fake pictures of things that haven't happened?"

"You don't think the whole affair's a large, unpleasant hoax? Only the select few from the council have a chance to see the thing working, remember. Suppose Makkub waits till something happens, then sends the counsellors out to tell the populace it was exactly as the machine predicted."

Automatically—forgetting the darkness—I shook my head. "That won't work. Fuzzy-bubble believed in the machine, right enough. He couldn't have deceived the Mattus—"

This rather took the wind from Hartnell's sails, but he hadn't finished. "Or suppose the focus was wrong. Fuzzy-bubble said the machine goes several days ahead—yet all we saw is due to happen in the next few hours."

Now as I remember this was not quite accurate. The first two scenes—the flight of spheres and the Great Hall assembly—were definitely timed to occur shortly; after that the coloured-line indicator ceased to register. "So," I said, "we still don't know whether we've a few hours or several days to live. Or any time in between."

"The entire machine might have run amok," said Hartnell, hopefully. "Suppose that scene of the graves isn't due to take place, maybe, for fifty years—"

Tubby sighed. "There's an awful lot of supposing going on—"

"Once I get off this damned, dreary planet," I said, fretfully, "I'm going to take good care never to come back to be buried here—whether it's fifty or a hundred years from now!"

Hartnell declared he'd never encountered two more miserable and pessimistic individuals than Tubby and me. He said that if we refused to be cheered up by his highly intelligent speculations concerning the true nature of the Machine of Revelation we might at least stir ourselves to take escape action instead of merely sitting inside an oversized egg-shell moaning about cruel Fate.

Tubby grunted. "There's half a dozen bubbles hanging round the entrance. Stick your head outside and you'll be slapped flat on your face by a force-beam!"

This damped Hartnell's enthusiasm a little, but he persevered. I got the impression he would have concentrated more easily had he been able to pace up and down the floor.

Curvature made this both uncomfortable and impossible, so he resumed squatting in brooding silence. Wishful thinking became replaced by hopelessness.

"What d'you think they're going to do with us?" asked Tubby.

Gloomy reflections were interrupted by sudden whistlings and chirrupings over the inter-com. We had scarcely time to sit up inquiringly before Makkub himself—without his six blue bearers or attendant counsellors—floated into the room. His deep red radiance reflected in sinister fashion from the walls and bathed our suits in a fierce, eerie glow.

"Well, well," said Hartnell, softly. "Why this lack of pomp and circumstance? Has he come to strike a private bargain—or just to gloat?"

We didn't have to wait long to find out. Staring rather apprehensively into the round, crimson "face" of Kardoorn's hereditary ruler, I switched on the Mattus. His personality hit me with the force of a thrown brick.

"Now, O misshapen ones from beyond the limbo, have you seen your fate in the Machine of Revelation? You will never return to the strange, undesirable world whence you sprang, but lie here on Kardoorn, with those curious mounds to mark your resting place. That is the meaning of the pictures displayed by the Wise Ones' wonderful engine. The Council of Interpretation has thus decided, and its verdict cannot be gainsaid."

I knew Hartnell and Tubby were bursting with curiosity, so I took time out to tell them what was happening. "Those graves—"

"Yes?"

"They're ours, all right!"

Hartnell considered this for a moment. "In that case, Pop, tell the over-stuffed balloon a few home-truths—deflate him a bit! If we're near the end we might as well have a run for our money!"

There was a good deal of common sense in this, no doubt, so I swallowed once or twice to help pluck up my courage, and said: "O Makkub—we are not of Kardoorn. We do not admit that the pictures in the Machine of Revelation concern us—"

Instead of deflating, he began—literally—to swell and blaze with indignation. "Blasphemy!" he shouted. "An insult

to the Wise Ones and their marvels! Silence, O Thing! Silence, I say! Or the prophecy may come true before its proper moment!"

Very quickly, however, he cooled down and I sensed once more the envy and curiosity which had caused his visit. "Let us pre-suppose that the Machine has portrayed events truly. Ere you go beneath the ground is it not fitting that you should divulge the secret of the graves? If creatures such as yourselves achieve a permanent resting place, is it not fitting that I—Makkub—should also have the place of my dissolution perpetuated, so that all men may remember me?"

"What's he on about?" demanded Tubby, impatiently. "Have you given him a piece of your mind?"

"Yes. In return he called me a 'Thing'."

Hartnell chuckled. "I'd like to hear the slanging match. Pity we don't own another Mattus."

"It isn't funny," I said. "He's still thinking about a tombstone of his own."

"Well tell him about the birds and the bees—like you did Fuzzy-bubble. Then he'll know why he can't have one."

I did my best again with the facts of human life. Despite my revulsion for Makkub, I was struck once again by the sphere's undoubted intelligence. He understood, all right, but was being wilfully stupid through sheer egotism and self-importance.

"The body? And the spirit? You say that your grotesque shapes contain a holy and subtle element which departs at the moment of death—you know not where? The spirit is not buried with you?" He pondered on this for quite a time. "This spirit—it could be the same life-force as composes our own noble people?"

I didn't feel equal to theological argument and kept silent. For his own selfish reasons, however, Makkub persisted in plodding on. "Truly, it proves our higher status, for we are not burdened with unpleasant husks, such as yourselves. Then perhaps we, too, are not wholly lost at the moment of dissolution, but depart—unseen—to some celestial plane?"

I said I couldn't help him answer that.

Mulling over the problem, he remained reasonably subdued for quite a time, but eventually began flashing and swelling indignantly. "Unjust!" he shouted. "Impossible that I—Makkub—greatest and most revered of my kind—

should merely vanish! How will my people think of me when I am gone? What will become of them once their ruler is no longer visible?"

I brought him to ground with a jolt before he got out of hand. "Others wait to become rulers—the red spheres in their special quarters. We know how they are segregated once they leave the rocks—"

He cackled evilly. That's the only word for it—cackled. And to hear him sent my blood running coldly and brought out a clammy sweat. "They wait no longer! Lest impatience cause them to seek the throne before their rightful time—and to ensure that I, Makkub, earn permanent reverence in the history of Kardoon as its last monarch—they have all been privately destroyed!"

Through eons of time and across light-years of space the ancient madness still travels. Among all races burns the lust for power—creeping into the minds of creatures like some foul drug which demands greater and still greater doses. Yet ambition is never satiated—always the cry is for more, and in its attainment thousands are sacrificed and moral principles painfully evolved since the beginning of time stamped ruthlessly into the dust.

Thus it was with Makkub. He knew that sooner or later he must die—he intended it to be as late as possible—but now, with our arrival, had come the breath-taking conception of being able to continue his domination after dissolution. The idea fascinated his vain and ruthless mind so greatly that he deliberately shut his eyes to impossibilities.

Surely the Mattus must have betrayed the depth of my loathing and revulsion, but he gave no sign. Perhaps he was used to being regarded in this way.

"Now," said Makkub, airily brushing aside all previous information and objections, "I have explained the importance of my having a monument. You will tell me how it is done."

I sighed, despairingly. "Without a material body it is impossible." There was one ray of hope. "It is known for a stone to be erected as a memorial although no body is there—"

"No, no," he said, hastily. "It would be of no use without my own holy essence—"

"Can't be done!" I said, brusquely, fed up with this useless argument.

Had he possessed teeth he would certainly have ground

them in rage, but his fury did not reach the expected paroxysms and I suspected he still had something up his sleeve.

"How's it going, Pop?" asked Hartnell. Usually he knows enough not to interrupt during a Mattus session, but it was quite understandable that both he and Tubby were in a state of some suspense.

"Rather unpleasant. I'll tell you later. He's just coming to the worst bit, I think—"

Makkub's attitude changed swiftly to one of cunning. "You have said, O barbarous and clumsy ones, that the pictures in the Machine of Revelation do not apply to you. Hear, then—unless you obey my wishes, I will make certain that they do!"

He didn't say any more. At least he paid us the compliment of admitting we, too, possessed a certain intelligence. And with that thoroughly disturbing threat he bobbed out again.

We talked round and round in circles for a long time, not getting anywhere, and finally fell into an uneasy doze. I remembered thinking how, up on the surface, that pink sky burnt with the brightness of noon, concentrating its glare on the bare, brown rocks. We were immured in a stone cell hundreds of feet below ground in conditions of considerable physical and mental discomfort. I wondered why I'd ever been such a fool as to complain about the warm air and deserts of Kardoon. I'd have given a lot to be back there.

Sitting in the lowest portion of that eggshell-shaped room, we had formed ourselves into a tripod, leaning back to back, for greater ease. When something grabbed at my ankle I jumped up so speedily that Hartnell and Tubby nearly fell backwards in a heap.

It was Fuzzy-bubble, attracting attention by using the force-beam, and in no small state of agitation. "Come!" he said. "Makkub has ordered a Grand Assembly—and you must be present!"

"Now what are they up to?" asked Tubby, wearily.

"In the throne room—where we were before?" asked Hartnell, curiously.

"I suppose so." I looked at him in suspicion. "You've got something on your mind," I said, accusingly.

"But don't you see, Pop? It's the first picture on that

damned machine—first in chronological order, that is—coming true!"

We agreed it wouldn't be difficult for Makkub to engineer this, however, and decided to reserve judgment. Personally, haunted all the time by that last picture, I was only too pleased to do this.

Then Hartnell chuckled and I grew apprehensive. "Look here—"

"All right, all right, Pop. Only an idea—"

"I've known your ideas in the past—"

"I wonder whether your pal Makkub hasn't over-reached himself—" If he had I didn't see how. "What's going to be the reaction if you suddenly said your piece in the middle of that ceremonial flim-flam in the Great Halls and told 'em how he'd had all the heirs to the throne knocked off?"

I couldn't believe my ears. "Me? Me—tell 'em that?"

"Why not?" He assumed that bland, child-like innocence which invariably accompanies his more outrageous suggestions.

"Lots of reasons. First, I'd probably be worked on by force-beams as soon as I opened my mouth, and dropped in little pieces all over the hall. Secondly, there's the regulations—"

Although Inter-X parties are occasionally out of direct touch with the controller—and consequently immune from his guidance and instructions—the most complete accounting is called for on return to the parent ship. Photographic records are minutely examined, specimens checked and all occurrences—together with reasons for action taken—included in a written report. This latter, especially, is most strictly studied, and woe betide any squad whose members have infringed the rules.

Large volumes of regulations—salient features of which we are supposed to know by heart—have been drawn up in the light of long experience, and I, for one, am prepared to agree that although much red-tape is irksome there's usually a good reason for it. What Hartnell was getting at, of course, concerned political interference. The very thought of Inter-X men shoving their noses into another planet's domestic affairs always make the powers-that-be go hot under the collar. Whatever conditions we find on an inhabited world, it is our duty merely to inquire and record, lending material

aid if requested by "the existing governmental regime." Material aid, mark you—not political advice. And in the present instance there was no doubt that Makkub represented the "existing governmental regime" on Kardoon. Every member of an exploration squad can't be expected to know about matters of high policy at headquarters, and therefore, not possessing the complete picture, may bring catastrophe even when acting in good faith. So the rule is "Stay aloof" and the authorities are quite emphatic about its observation.

Hartnell had an answer. "We're supposed to get back with the information, aren't we? That's always held up as an Inter-X man's first duty. How can we give 'em an absorbing account of life on Kardoon if we're dead and buried? Makkub's the only one who's holding us back, so if we dodge him we do the job we're supposed to. A slight infraction of one small rule to help us carry out the bigger regulation." He seemed quite pleased with this ridiculous and faulty logic.

"Political interference—a small rule?"

Fuzzy-bubble meantime began to get impatient and dodged up and down like a bouncing, purple ball.

"We'd better go," I said. "Maybe the situation's improved since we last saw Makkub—"

"There," said Hartnell, fondly, "speaks the true optimist!"

I treated this essay in sarcasm with the contempt it deserved, and we made our way in silence through the awkward tunnels with the escort of spheres trailing along behind. Silence, that was, so far as vocal sounds were concerned. The inter-com began to bring us once again that terrible, numbing shriek of a thousand voices from the Great Halls. The sound, incredibly shrill, seemed to pierce my ear-drums and made me walk as though in some kind of daze.

Then, when I felt I could bear it no longer, the noise died and we knew that Makkub must be making his official entrance. He was perched once more upon the ridiculous, rod-like throne when we went in, green Pakkan and orange Zakkar positioned on either side. Fuzzy-bubble floated to his place among the semi-circle of counsellors, leaving us standing in embarrassing prominence between the assembly and the rulers of this highly undesirable planet.

Makkub, noting with obvious satisfaction, that I held the Mattus at the ready, wasted no time on preliminaries. He said a most urgent state of affairs had arisen; therefore he

had called them together in emergency, and the first stage of the proceedings would be a public report from the Witnesses to the Archives.

Whereupon a largish, yellow sphere moved forward to give an accurate, unvarnished account of the four scenes shown by the Machine of Revelation and, having said his piece, went respectfully back to his place.

A huge, singing sigh echoed through the vast cavern as those multitudes of shining spheres appreciated the significance of that picture of the graves.

It was cut short by Makkub getting busy again. He knew, he said, how all his subjects adored and revered him as their ruler, and how he loved them all just as much. None doubted that he was their greatest figure of all time—not excluding those giants among the Wise Ones.

"See, all men!" he declaimed. "I am not as others among you, for I am a red sphere—and the mightiest Kardoon has ever known!"

This sickening drivelt went on for quite a while, and I strained at the Mattus to discover the crowd's reaction. Surprisingly, it was quite fervent.

Then Makkub got round to us again. Some misguided persons who ought to have known better, he went on, conceived a strange idea that the three loathsome fashioned visitors might possess knowledge of chemistry which would increase the fertility of the nursery rocks. Such a notion was ludicrous, of course—nothing short of blasphemy, indeed, for even the Wise Ones themselves had been unable to solve this ancient mystery.

"I hail the Wise Ones!" he shouted, suddenly.

Back came a sour, screeching wail: "Hail, the Wise Ones!"

"In their profound farsightedness, the Wise Ones would not have wished that I, Makkub—greatest of his race—should be less in memory than these gross creatures standing before you now. The Machine of Revelation has foretold how their tombs will be commemorated when, in a few hours, they are dead. I believe, also, that given sufficient sacrifices from among those who love me so well, the Machine will divulge the way in which I, Makkub, am to be with you in memory through the centuries."

His meaning began to dawn upon the packed hall and the jostling spheres sang again with increased adoration.

"Therefore," continued this red, evil horror, "I call not for a thousand—or for ten thousand—but for hundreds of thousands to devote themselves to this experiment, so that I may know I am considered superior in the realm of creation to these peculiar monsters who have thrust themselves among us." He swelled and pulsed with sheer, grotesque megalomania. "The Wise Ones would have wished it to be done. Moreover, I—Makkub—here with you now—demand it!"

I snapped off the inter-com and made urgent slapping motions for Hartnell and Tubby to do the same. I think Hartnell was a fraction of a second too late, though, and the first shrieks of enthusiastic tumult needled his ears so painfully that his face went white.

Meantime, feeling more than slightly sick, I continued to "hear" proceedings over the Mattus. Hostility towards us became inflamed—probably quite a natural sequel to the rush of loyalty to the head that Makkub had engendered. Only here and there did I detect a discordant objection, but such small voices were overwhelmed by great shouts of "Hail, the Wise Ones! Hail, Makkub!"

"Therefore," concluded Makkub, gleaming a more baleful crimson than ever, "shall great celebrations be proclaimed in honour of our dedicated multitude of heroes, and as a preliminary to the occasion all men shall witness the ceremonial tearing in pieces of these creatures from a far-off world! Afterwards their remains shall be placed in the graves and covered with small rocks, for we are a humane people. Moreover, the Machine of Revelation has so decreed it!"

## CHAPTER NINE

*Forgotten Haunt of the Wise Ones*

WE were back in the dark little egg-shaped cell from which we had so recently departed. Occasionally one of the spheres on guard outside loomed for an instant in the entrance aperture like a pale green moon, found we were still among those present, and moved out of sight to join his fellows of the death watch.

"Anybody got an idea what we might do?" asked Hartnell, at last.

Nobody had. All the time our minds re-created that picture of three small mounds upon the Kardoon plain, with markers at their heads. Frankly, I didn't know what to make of it, except that even if the machine had slipped, Makkub meant to employ the incident for his own purposes.

Then Fuzzy-bubble appeared in a state of agitated distress. "Come!" he said. "Come quickly! I have sent the guards away, but there is no time to lose!"

We didn't stop to ask questions. Panting and stumbling, we followed him through the queer labyrinths of Kardoon, seeing nothing save the monotonous sequence of caverns until after more than half an hour he halted, hovering, before a roughly cut opening scarcely more than eighteen inches in diameter. "Inside," he said, "is an ancient cave of the Wise Ones. Here is part of their domain known only to a few of us. Take care when you enter, for the way is steep."

Steep? He spoke only half the truth. I suppose, though, it was kind of him to warn us and the precipitous drop into pitch darkness didn't hold the same terrors for any being who could float grandly and confidently above.

Hartnell hitched the Karlin line again and we followed him down in the approved style until thought of the height above me brought on a copious sweat. That cavern lying immediately inside the cliffs was by comparison a mere nutshell. Down and down we went, deeper into the darkness—a terrifying and apparently endless descent from which I drew only one comforting conclusion—I'd never have been

able to make it in daylight, even if Makkub himself had been after me with his own personal force-beam at the ready.

Young Hartnell only chuckled when I mentioned this to him. "I'll bet you would, Pop!"

Tabs on the Karlin line read "1,250 feet" when at last the sheer wall commenced slowly to curve out from beneath our aching feet and betrayed the fact that here again the enormous excavation formed the inevitable ellipsoid. The monstrous size of an invisible arch over our heads set me trembling, although I tried not to think about it. Hartnell turned up his outside microphone-set to full power and shouted, but the place was too vast for echoes to survive.

Once on the floor of this incredible grotto, Fuzzy-bubble led us to where a small hole provided admission to a recess with an almost level floor. The hiding place provided me with the first easy moment for a long time. At least we would be safe here from Makkub and his minions.

"There is trouble," said Fuzzy-bubble, unhappily. "Trouble such as we have not known on Kardoon in my time—"

"Don't tell me," I said. "Let me guess. It's Makkub and his demand for— for sacrifices. The populace cry out in protest."

He seemed astonished. "How could you know?" An alarming possibility entered his mind. "Would Makkub be aware of this, also?"

I doubted it and asked him to tell me more. A section of the council hadn't been happy about Makkub for some time, I learned. Now, with his insane demand for the population to be decimated in order to satisfy a vain and crazy ambition, they had decided something must be done.

"Treason!" laughed Hartnell, delightedly. "Sheer treason! We'll get away from here yet!"

I didn't think the situation at all funny. Neither did he the next instant when a yellow sphere bobbed through the entrance and we all feared the guards were upon us.

"Make no alarm," said Fuzzy-bubble, reassuringly. "It is Fandar."

And surprisingly enough I then recognised the yellow visitor as the Witness to the Archives, who had said his piece in the assembly.

"Two thousand!" said Fandar, aghast. "I have been

ordered to provide two thousand sacrifices from my already under-staffed department. It is wicked—monstrous—"

Despite the demonstrations of enthusiasms, far from sufficient candidates had applied for the honour of sacrifice, whereupon Makkub had introduced some sort of conscription.

"Our precious records!" wailed the yellow sphere. "How can they possibly be spared?"

Kardoon possessed no written history. All data considered necessary of preservation remained stored in the minds of the Witness to the Archives and his large staffs, who, approaching the end of their days, transferred their quantum of information to new, young spheres. But if two thousand must go, and insufficient other spheres came from the nursery to receive the knowledge, how could the records be preserved?

"Well," said Hartnell, in a gratified tone. "He's the very chap we want to talk to. He'll know how they faked those pictures in the inachine. Maybe mass hypnotism or something—"

There are times when he has the wildest ideas, and I felt rather glad to hear Tubby pour large gushes of cold water over his latest effort. "You can't take pictures of hypnotic mirages," he said, discouragingly. "My stuff turned out all right."

Naturally, Hartnell wasn't in the least abashed. He waved a hand and said airily: "Go on, Pop, ask him. He'll know how it was done."

As it happened, Fandar didn't take kindly to the suggestion that trickery entered into the working of the machine, and Fuzzy-bubble had to do a lot of soothing and explain how the insult was due to our ignorance and so forth. No matter what they thought of Makkub, the spheres didn't intend to stand for reflections being cast in the integrity of the Wise Ones.

"This I tell you," said Fandar, solemnly. "I am old, and I have witnessed the Machine of Revelation operated in days even before Makkub became our ruler. All that it has ever portrayed has come to pass in identical terms."

"So, also, have I stated," declared Fuzzy-bubble. I gathered he didn't like to be forced into taking sides against his own people. "Yet the strangers hesitate to believe. Per-



haps it is because they rebel at knowing they will never again see their own kind but occupy graves on a far-off planet."

"He's right about that," said Tubby, fervently.

Looking on the bright side—as always—Hartnell suggested we simply had to stay put in our little cave to make a liar of the machine. "These things are supposed to happen pretty soon, aren't they? We could last out a couple of days on the water and oxygen we've got left—maybe longer."

"One picture's come true, anyway," I said. "If you ask me, another's in progress right now."

"Oh?"

"Those spheres streaming out from the rocks. Don't you think they're already searching?" Tubby whistled in dismay, and even Hartnell seemed impressed. "Suppose they find the scout ship? If they fiddle around with force-beams and trip the firing mechanism, we'll never see it again—"

Young Hartnell laughed and said I was becoming a regular little ray of sunshine.

Seeing no future in morbid speculations, I turned again to Fuzzy-bubble and Fandar. "If the people rise against Makkub, how will they depose him? Has he not guards to protect him? And is he not the rightful ruler?"

"It rests with the council," said Fandar. "A majority against him, voting thrice, can oblige him to relinquish the throne to a new monarch. This is known from our ancient records. And," he added, bitterly, "it is this department which Makkub has ordered me to turn over in its entirety to the sacrifice."

If ever we had encountered a cunning and malevolent intelligence, this was it.

"There are other things you should know," I said, slowly. The decision to give this information probably ran counter to the authorities' "no politics" rule, but at the thought of that damned, red, evil sphere I grew inclined to throw the entire Inter-X manual beyond the outer nebulae. "In order that none may challenge his authority, Makkub has secretly destroyed all the other red spheres!" The Mattus pulsed powerfully with indescribable sensations of disgust, horror and anguish. "Is such a situation provided for in your archives?"

It wasn't. Even in the days of the Wise Ones nobody had foreseen a time when sacred red spheres might be totally lacking.

"Now, truly, all is lost!" declared Fandar. "I must hasten to bid our friends wait—"

"Even now they prepare to act!" moaned Fuzzy-bubble, desperately. "They will be detected and destroyed!"

Vibrations of my bewilderment radiated from the Mattus. "I don't understand. Surely when the council learn what Makkub has done they will all turn against him—?"

"It does not matter now," said Fuzzy-bubble, hopelessly. "Without Makkub we should have no one. Kardoon must possess a ruler—and there are no red spheres!"

I wondered if, after all, they were as intelligent as we'd believed, but, taking the charitable view, no one can think of everything. "The counsellors have powers. They can make the decision of voting against the ruler. Why should they not make other decisions concerning the leadership of the people?"

Surprisingly enough, this took some time to sink in.

Then, at last, they understood, and had they possessed voices the words must have sounded very awed and hushed in the darkness. "Now we know that the spirit of the Wise Ones is surely with you!" whispered Fuzzy-bubble. "A brave new conception—"

Frankly, I couldn't see what there was to get so excited about in this elementary principle of democracy.

"What have you done to 'em, Pop? They seem a bit agitated—"

I said it was only a suggestion for a Council of Regency. "Apparently they've never thought of such a thing before."

"Well, tell 'em to spread the glad news instead of wasting time bobbing up and down like that!"

I, too, wondered whether the counsellors might not turn against Makkub in a body as soon as they learned of Makkub's horrible manoeuvre to consolidate his own power, but hopes were dashed as soon as Fuzzy-bubble and Fandar sighed dolefully in unison.

"A noble theory—breath-taking in its imagination—yet it

cannot be. A red sphere must rule Kardoorn. So it has been ordained since time immemorial."

The Mattus oozed despair, and I felt my heart sink. I thought it could go no lower—but it slumped right down into my boots when we looked through the entrance into the big cave and saw all the guards waiting there.

## CHAPTER TEN

### *The Place of Execution*

IT really seemed as though the prophecies of that uncanny Machine of Revelation were coming true—with Mak-kub's evil help or otherwise.

They hauled us up to the surface in a nightmare journey during which they weren't particularly gentle. Worst part was the terrible climb from that prodigious cavern—far more horrifying in reverse—and what we'd have done if Hartnell had not left the line in position beats the imagination. Even so, we could not move fast enough to satisfy the guards, who every now and then gave us a jolt with their force-beams. I kept wondering all the time whether they might hit the Mattus or the gravity reactor.

Once Hartnell slipped twenty feet down the line, despite the safety clip, but the guards acted like lightning and hauled him back in position immediately. I heard his frenzied yell of warning over the inter-com and paused, heart in mouth, until he was climbing again. Then I reflected how typical it was of the young devil that even in the moment when near-disaster came upon him he thought of Tubby and myself, toiling on lower sections of the line, whom he might take crashing with him to the bottom of that awful void.

Continually we climbed, accompanied by the cluster of hovering, impatient moons where guards held Fuzzy-bubble and Fandar in custody. At last we were able to wriggle

through the rough, narrow aperture and stood trembling and exhausted once more in the smaller tunnels.

A sudden scuffling and protest from Hartnell made me cry in alarm. "What's the matter?"

"These damned bubbles won't let me reel in the Karlin line! Tell 'em we've got to get it back—"

The guards refused to wait.

"Let it go," I said, wearily. "What's it matter now?" Come to that, what did anything matter?"

"Very well," said Hartnell, between his teeth. "Good luck to 'em when they try to haul us up that steep side to find the cliff entrance, that's all! I'll make 'em use up a year's ration of energy!"

And in actual fact, while they bustled us painfully through the Great Halls, up those awkward apertures and down the other side, we saw our first death on Kardoorn. A guard, who had been notoriously zealous with his pushing and shoving, moved away from our little group and hovered indecisively for a few moments, his greenish radiance flickering slightly. It was, as Hartnell said afterwards, like a man wondering whether he was going to be sick or not. Next instant the sphere had gone—no noise, no silent flash—just nothing—as though an old-style electric bulb had been switched off.

"Well," said Tubby, philosophically, "so much more work for the others."

The remaining guards treated the incident as perfectly normal, taking no notice, and brought us eventually to the cliff-face. They appeared to think we were being deliberately awkward in not climbing that frightful, steep curve of smooth rock and gave us a very rough journey. Once, during the upward haul, I bumped so violently that I thought my shoulder was dislocated. They pulled us unceremoniously to the entrance with force-beams from above, making Hartnell remark that it was "like being slung out of a Z-bar by the scruff of the neck."

At last we stood under Kardoorn's uneasy pink sky, with its dry heat pressing down on us gratefully after the cold, clammy atmosphere of the catacombs.

"A nice change," Hartnell agreed. "Pity we shan't have a chance to get really used to it—"

They took us back along the rocky defile to where the wide plain stretched its four miles of parched rock to hills on the

far side. But we were carefully steered from the direction of the nursery and made to walk eastwards, still skirting the cliffs.

"At least," said Hartnell, "if they send anyone to find us they'll know we died with our boots on and pedometers ticking."

Levity seemed misplaced, I thought, in view of the fact that our pedometers weren't likely to work much longer. A long, narrow cleft appeared in the rock face, hemmed in by unclimbable walls and possessing no exit.

Tubby looked around and upwards, wrinkling his plump features with disfavour. "Now I know why they wouldn't let us bring the Karlin line—"

We huddled together at the end of the defile—ourselves and the two spheres. The guards took up positions in line along the cliff-side, remaining motionless there in a fashion similar to the very first spheres we had seen and who laid down that uncanny barrier of force-beams. No doubt another invisible obstacle now spread itself across the canyon—designed this time to keep us in. I snapped out the Mattus rod and asked Fuzzy-bubble about it.

"Oh, yes, the guards are using their force-beams." Hollow despair dripped from his voice. "It is impossible to escape without help from outside. We can only await the end."

"You mean that other spheres must concentrate force-beams before the guards will raise the barrier?" I cast my eye along the line of watchers, counting eight.

"If—although it certainly will not happen—rescuers arrived, the guards would need their energies to beat off an attack. They could not do this and maintain the barrier at the same time."

I wondered again whether the spheres were as intelligent as we thought. "Surely, then, you need only call to your friends? Your radio waves pass through rock, do they not? Those in the tunnels would hear—"

Fuzzy-bubble shook his head, as it were, pityingly. "I could not do that without betraying them to Makkub. Also, be sure he has them watched. One suspicious move and they, too, would be consigned to the Place of Execution—"

Perhaps, after all, it was I who lacked intelligence. However—Place of Execution?

Fandar woke up at last, no doubt stimulated by this sinister phrase. "It is here, of course! Do you not recognise it from

the pictures in the Machine of Revelation?"

I reached over and shook both Hartnell and Tubby violently. "The fourth picture!" I shouted. "This is it!"

Wide-eyed, they stared around, forcing memory to recall details. Tubby gave an appalled exclamation and Hartnell pursed his lips as though to whistle. "It is, you know!" he said. There was a brief, tense silence. "What about Fuzzy-bubble and his friend, though? I didn't see them?"

I passed on this query through the Mattus.

"Oh, yes," said Fuzzy-bubble. "We saw ourselves there. Perhaps you were too occupied with the wonder of it all—"

This no doubt explained their attitude of resignation and despair. They believed implicitly in the machine's prophecies. We didn't—or at any rate, tried not to do so, for the evidence in favour of that devilish apparatus piled itself up implacably.

"Time," I said, reflectively. "When will they solve its secret?"

Hartnell grinned. "It's been done, Pop—"

"I don't mean that damned machine. There's that great cluster of tall buildings back at headquarters, crammed with calculating machines and the cream of meta-physicists. Haven't they achieved anything at all?"

I saw his mocking glance. "They've worked out theories—"

"They've been doing that since the days of Einstein," said Tubby, sardonically. "And where's it got us?"

"The theory—the basic idea—always has to come first. The latest I heard is that there's no such thing as time—"

"Tchah!" I said.

"No, listen—forget the passing of days—"

"In that case we'd never grow older—"

"Ah!" Hartnell heaved himself to his other elbow. "Now that's different. Imagine there's no time—but there's change—circumstances and conditions always in a state of flux. You don't grow older—you just change—"

I said I didn't get it.

"Think it over. Or maybe you'd prefer one of the older theories—that time is foreordained, with events coming towards us like a beam of light and happening as they reach us. Don't forget the light we see from the Great Nebula in Andromeda started out about 900,000 light-years ago. For all we know, the Great Nebula isn't there any more—it might have

met with catastrophe 800,000 years ago. Even so, we won't know for another 100,000 years—"

"Oh, dear," said Tubby.

"What now?"

"That beam of light idea—it makes that confounded machine more plausible. The Wise Ones found how to go a little way along the beam, as it were—"

Personally, I felt like going a long way round the bend, as they used to say, but at least the discussion took our minds from that forbidding line of spheres watchfully perched against the rocks and from the nagging anxiety which began to close upon us as nerves stretched to meet the tension.

Beams? Light-beams or force-beams? That brought me to the question of the guards again and made the whole subject pointless. They propped themselves there, about ten feet from ground level, winking with an evil, greenish sheen. Through their tenuous substance I could see the uneven rock-surface. Strange how such frail bubbles could hold so great a force or why they failed to puncture themselves on sharp corners. Easing myself round a little, I noticed for the first time that the guards did not, after all, rest firmly against the cliff-face, but remained some two or three feet away. In fact, by shifting my line of sight more to the left, I obtained a clear view behind them right down to the brown, desolate plain beyond.

I told Hartnell about this. He was in the middle of a rather tedious discourse about the theories of some ancient scientist named Dunne, who had performed elementary experiments in time, and he didn't take kindly to the interruption. "Eh? Well, what of it?"

This rather took the wind out of my sails, and I muttered something about it being interesting.

He looked at me curiously and resumed his lecture. "Now where was I? Oh, yes, well this ingenious Dunne imagined time as a sort of escalator, with a man travelling on it backwards, looking down to where he had been—that's the Past, of course—yet all the time being carried upwards he knows not where—that's the Future. Now if—"

He broke off and gripped my arm like a swamp-octopus from Zonnash. Deep in my own quagmire of despondent reflections, it nearly made me jump right out of my atmosphere suit.

"What was that you said, Pop?"

"Eh? Me? Why, nothing—I was just thinking—"

He gestured impatiently. "Not just now—a few moments ago. About the guards—"

Then I remembered. "Why, only that they don't actually cling to the rocks. They're hovering a couple of feet or so away—"

He guffawed delightedly. "Yes, they are, aren't they?"

"What's all this about?" demanded Tubby, suspiciously.

"Look here," I said, equally doubtful. "What hare-brained scheme have you hatched up this time?"

We knew sufficient of Hartnell's little ways—through bitter experience—to get alarmed when he showed enthusiasm of that kind.

"Just a little idea to get out of here," he said, modestly.

I drew a deep exasperated breath. "Is that all? And precisely how—?"

Sarcasm is always wasted on Hartnell. "Look, Pop, have a word with Fuzzy-bubble and ask him whether it's right that a good, brisk prod would puncture the guards' envelopes."

"What good will that do? They'd never let you get within a dozen yards of 'em! Besides, all we've got to do it with are the gamma-pistols and they don't work on inorganic matter—"

Regally, he brushed objections aside. "Don't argue, Pop. Ask him."

Fuzzy-bubble, although rather surprised by such a gruesome query, agreed that this was true. "Failure of the envelope is invariably fatal, of course. That is why executions are performed by tearing it apart."

"Ask him if it needs a lot of strength," said Hartnell.

Apparently it did—the maximum a healthy young sphere could exert.

"I still don't see what you're planning," I said. "If you chucked a pointed rock at 'em they'd only catch it in mid-air."

He laughed delightedly. "Nothing so crude, Pop. Finesse—that's what we're going to use. Warn Fuzzy-bubble and the other one. Tell 'em to be ready to follow us—"

"Us?"

He raised his eyebrows. "Don't you want to come with me?"

There is a very ancient saying about "jumping out of the frying pan into the fire." I thought those old philosophers

possessed a fund of wisdom which Hartnell might do well to consider. What rash and impossible plan had he devised?

Yet Tubby and I need do nothing, he said, save keep close at his heels when he went into action, and if they'd got the slightest sense of what was good for them the two spheres would do the same.

"Very well," I said, with a sigh. "Very well." I could see the picture of those three graves very clearly.

"Good!" said Hartnell, briskly. "Now I'll turn round while you unscrew the gravity-reactor from my suit."

"Almighty Altair!" Tubby stole one of young Hartnell's favourite ejaculations without any shame, and I didn't blame him.

"Now listen—" I said, nervously.

"Unscrew the thing and don't argue!"

I unscrewed it, making quite certain it was switched off.

"Extend the power-pack leads about three feet, so that I can hold it in my hands."

When he had got the thing arranged to his liking, he said: "Now come on! When I run—you run, too!"

Of course, the guards could see us coming for fifty yards or more. I wondered what it would be like hitting that invisible barrier at speed. Would we bounce off—or feel as though we had run our heads against a block of solid malachite?

Instantly an alarmed shrieking sounded over the inter-com. The guards—telling each other to be ready. They'd be exerting full power on the force-beam barrier.

Hartnell went swiftly and unswervingly, with a strange, crouching movement, the gravity-reactor resting on both gloved palms and his elbows bent down against his chest, as though ready to take a sudden strain.

Sweating copiously, I pounded at his heels, hearing Tubby behind me. I supposed Fuzzy-bubble and Fandar were there, too. I didn't know definitely, but I certainly didn't feel like looking round to find out. Those evil, greenish guards were frighteningly near.

As we drew level with the first of them, I heard Hartnell grunt suddenly and swing towards the opposite cliff. Instantly, he threw his weight back to our path again, whereupon the same thing happened. And again—and again—

"Perishing Polaris!" gasped Tubby. "We're actually getting through!"

Personally, I hardly dared look. There was Hartnell, grunting from time to time as though something kept hitting him in the solar plexus, but still running.

I cast a fear-filled glance at the cliff—just at the instant when the last remaining guard threw himself violently against the jagged rock and disappeared!

We kept running until we reached the plain, then fell in a heap, completely spent. A great sound of rasped breathing occupied the inter-coms and I know for a fact that I made a considerable personal contribution to it. Trembling uncontrollably with the reaction, I lay there feeling as though my very bones had turned to water.

Next I knew was a protesting noise from young Hartnell. "If you two heavyweights can drag your carcasses off me, I could find out the damage—"

"I don't know what sort of state Pop's in," said Tubby, "but me—I don't think I can shift for another ten minutes—"

We did, though, to find Fuzzy-bubble and Fandar bouncing in violent wonder. Somehow I raised strength to switch on the Mattus. "Such marvels have never been known—even in the days of the Wise Ones!" twittered Fandar. "Eight guards—defeated by only three! Truly the strangers possess a magic strength!"

"Defeated by one alone," I said, giving credit where credit was due. "We merely ran with you."

"Also," said Fuzzy-bubble, "are the strangers merciful, for they could have killed my own men at the entrance to the pass, yet they did not do so."

I stared along the rocky defile. No guard remained to twinkle greenly against the bare, jagged stones, with all colours of the rainbow shimmering across the surface of his envelope. I wondered how Hartnell had managed it.

"Well," said Tubby. "What now?"

"As I've probably sprained both wrists getting you out of that fix, you might at least put this reactor in place for me."

I felt his arms through the supple material of the suit. "Don't try to make a martyr of yourself," I said. "Your wrists

are all right. But thanks, anyway. Now tell us how you did it."

Young Hartnell is usually at his cockiest in times like these, but somehow we didn't find it difficult to forgive him. On this occasion, he chose to be annoyingly mysterious. "Let the explanations wait, Pop. It'll help while away the long winter evenings. This is the problem now: Are we going to leave Kardoon with the job half-done?"

He made it sound all very worthy and righteous, whereupon I threw back at him a remark he himself had voiced earlier. "What job? Not so long ago you were telling us how important it is to get back to the ship with our information—"

He grinned again. "Think what Makkub's likely to do to poor old Fuzzy-bubble. Are we going to leave friends in the lurch? Never let it be said that—"

"No politics," I warned him.

He made a rude noise.

I tried again. "Let's leave before that picture of the three graves comes true—"

In the end, of course, we had no option but to agree.

"For the second time," said Tubby, "what now?"

"Fuzzy-bubble or Fandar might spy out the land. Maybe they've heard already what's happening."

I passed on the query via the Mattus.

"Oh, yes," said Fuzzy-bubble. "All men are called to the Great Halls. Makkub has summoned another emergency assembly in honour of those who are to be sacrificed. There is murmuring among the people—yet they are helpless—"

"Murmuring?" inquired Hartnell. "That's good! What he really means is that they're screeching their heads off!"

"Be thankful it isn't sounding very loud in the inter-com, anyway."

"But don't you see—with all of 'em listening to Makkub somebody might creep near enough to find out what it's about. We can't do it because we've lost the Karlin line—"

Fuzzy-bubble volunteered for this rather dangerous job,

while the rest of us remained hiding in some convenient corner of the rocks.

Not wishing to stray too far from the main entrance, we arranged a rendezvous near the cleft leading to the nursery, and it was here, with considerable misgivings, that I watched him float away. We arranged for him to transmit a low note, recognisable over the inter-com, in case of trouble. Whether this provided him with reassurance I don't know, but even if the signal came I wasn't optimistic about being able to form a rescue squad.

#### CHAPTER ELEVEN

#### *"Can You See It? Look—Down There!"*

FOR the time being, then, we had nothing to do save sit in a secluded pocket of the rocks and hope no searchers would find us. Fuzzy-bubble had departed on his unenviable but necessary mission, leaving Fandar feeling rather dejected and alone. I tried to cheer him up over the Mattus, only to find he was in no mood for conversation.

"At least," said Tubby, "we could pass the time hearing what Hartnell did with that gravity-reactor. I don't like not knowing things—"

I looked at Hartnell curiously. "Just how did you do it?"

He laughed, enjoying being mysterious. "Give your thanks to old Isaac Newton—"

Remembering how I'd thought of this venerable twentieth-century scientist while we were toiling up that ridge, with the gravity-reactor harness cutting our legs so painfully, this seemed very much of a coincidence. I still didn't understand, though.

"Newton made a rule," said Hartnell. "Quite a number of

'em, in fact—but one which said 'Every action has an equal and opposite reaction.' Work it out from that!"

Tubby groaned. "Come on, come on—let's hear what you did!"

"Those force-beams—we saw how Fuzzy-bubble lifted the stone and pulled over a slab of rock when he gave us his first demonstration. Now you can't push or pull anything without getting a purchase somewhere." He warmed to his explanations and began to gesticulate. "Imagine a man trying to push a door open. He presses against it with his hands, thereby digging his feet more strongly into the ground. Just as old Isaac said—an equal and opposite reaction. Yet if by any chance the door opens suddenly, while he's still shoving, the pressure from his feet throws him off balance—"

Then I saw it all, and marvelled at its simplicity. When the guards directed force-beams to provide that invisible barrier intended to hold us captive, it was also necessary to find support with a repulsor beam of similar strength against the rock. Indeed, had we tried to pass between them and the cliff we should also have found a barrier there, yet the adjusted beams held the spheres themselves in perfect balance.

But when Hartnell ran that gravity-reactor through the force-beams, it nullified all effort exerted on that particular side and—as in the illustration of the man pushing against a locked door—threw them off balance so unexpectedly that they had no time to readjust their pressure, and so violently that they slammed themselves to extinction on the jagged stone.

"You mad young fool!" I said, aghast. "You might have shattered every single bone in your arms and shoulders!"

He merely laughed. "But I didn't, did I, Pop? And here we are—away from the Place of Execution, safe and sound."

"So far," amended Tubby, gloomily. "Wonder why they had to pick on a corner like that for it. Why not have the ceremonies in those nice, clammy vaults. They're more in keeping with the atmosphere—"

"Better get Pop to ask Fandar about it," said Hartnell, lazily. He lay back comfortably, hands clasped behind his helmet. We might have been enjoying a leisurely picnic on a summer's day, instead of waiting to be found by Makkub's murder squad.

Anyway, for want of something better to do, I passed on the query.

"Oh, yes," said Fandar, "the old Place of Execution was the room where Makkub visited you. That has not been used for many years now. Dissipated energy from the bodies of victims refused to disperse completely and gave rise to strange, disturbing manifestations—"

Ghosts? They had them here, on Kardoon? I closed my eyes and shivered, despite the heat. What was I doing on this planet, at all? Why couldn't I be somewhere getting on with my work? A moderately competent botanist, getting on in years now, ought not to be marooned on such a desolate, forsaken world—without a blade of grass or scrap of lichen—hearing bizarre stories about the ghosts of executed spheres. I was thankful we hadn't learned such things before being thrust into that dark, egg-shaped cell.

"Listen!" said Hartnell, suddenly. "Are they cheering, or something?"

A shrill, confused uproar sounded in the inter-com, making us all experience once more that unpleasant head-swimming.

"It is Makkub," explained Fandar. "He has announced the hour when the Machine of Revelation shall be operated again. Three hundred thousand people have been chosen as sacrifices—" The Mattus coldly reflected his horror. "It is more than half our population! There is much groaning. What we all regarded as an honour is now an affliction. The people are not happy—"

Hartnell said nobody could expect them to be.

"It is no part of our duty," I told Fandar, "to say how your world should be governed. Yet we have offered a solution—let the council depose Makkub."

He sighed. "That is impossible—we must have a ruler, and while he is in authority he must be obeyed."

I wondered if ever, in the long and savage catalogue of crazy ambition, there had ever been a more senseless massacre. Probably such had occurred somewhere, though I was glad I'd never heard of them. And this vast slaughter was to be pressed through in the hope that Makkub could see whether, when he came to the end of his days, his people would succeed in interring him in a marked grave! The ridiculous horror of the whole business smacked of a madman's dream.

That must be it, of course—Makkub was completely, hopelessly insane.

Hartnell rose to his feet and shuffled impatiently. "I don't care if a hundred controllers were shouting at me over the radio right now—I'm going to do something!"

"But what?" I said, helplessly. "We can't even get down there. We'd break our necks in the first cavern—"

He looked at me in that peculiar way of his and grinned again. "There's another way down—"

Tubby and I stared.

"I don't know whether it's easier or not, but it's worth trying—"

"What in the name of Orion are you talking about?"

"Through the nursery!"

Then I remembered how we had seen those new-born bubbles rising uncertainly from the clusters on the life-giving rock to be shepherd by nurse-spheres into an aperture on the far side of that basin—to the incubators. Fuzzy-bubble had told us, to learn about the strange society of which they were now members.

"We might," I said, doubtfully, "except for the guards—"

He grinned. "We'll surprise 'em with the gravity-reactor again."

Fandar, however, assured us that for an occasion such as Makkub had now decreed, a hundred per cent. attendance was essential—nurses, guards and all—save for those absent by special permission. He seemed confident that the only spheres who might be excused were those detailed to keep an eye on us.

"For," he said, "any new-born citizens will not travel far from the nursery, and what is there to be guarded against, since Makkub believes you to be sitting in the Place of Execution, awaiting ceremonial dissolution and later being placed in the graves which the Machine of Revelation has foretold as awaiting your remains?"

After he had delivered himself of this long-winded sentiment, I tried to ask him about the geography of the incubator caves, because there wasn't much use making our way in that direction if the descent on the other side proved too precipitous. Apparently, however, he had never been in that section of the labyrinths.

"Well, come on," said Hartnell, "or we'll be too late."

Leaving Fandar among the rocks in case Fuzzy-bubble should return—someone had to stay and the three of us didn't like the idea of being separated—we advanced as far as possible under cover of defiles until we reached the nursery entrance. No guardian spheres were in sight, and for a few moments we stood looking into that bright, incredible spawning ground, with the faint, eerie cheepings sounding in our helmets.

"There's the way in," said Hartnell. "Right at the far side."

Clusters of infant spheres covered the stones so thickly that at times we were obliged to pause and map out the next stage of the journey by observation. Here and there smallish globes moved along in a lost, helpless, uncertain manner, a few inches from the ground, obviously not knowing what to do in the absence of nurses. Once Tubby almost stepped on a small bubble which floated across our path.

"Mind your big feet," said Hartnell. "You nearly flattened little Pinky there."

It might have been curiosity which attracted them towards us. Although newly entered upon existence, their monotonous, rocky surroundings must already have proved familiar, and the sight of strange things moving nearby could have stimulated the natural inquisitiveness inherent in all young creatures. Therefore they seemed to take a perverse delight in thrusting themselves against our ankles and I only hoped we wouldn't be subjected to any experiments with infant force-beams!

We paused at the aperture—another funnel-shaped hole about six feet across. Hartnell shoved his head inside and shone the beryllium torch downwards, grunting with satisfaction. "Not too steep, after all—about eight feet sheer drop, then it flattens out quite rapidly. We ought to be able to slither down without much trouble." Typically, he didn't bother with the problem of how we could get out again.

"No spheres hanging about at the far end?" I inquired, cautiously. "You ought to be able to see 'em glowing—"

"Black as the inside of the Old Ones' museum on Krellig," he said. I thought he might have chosen a happier analogy. Even after all these years I sometimes wake sweating in the night through dreaming of what happened to us in that terrible place.

He turned and gazed once more across the stony basin.



"See anything coming, Pop?"

Brown rocks, rosy sky, masses of soap-bubble spawn—that was all. No greenish guards or other alarming visitors glinted against the landscape. Little spheres floating free of their stony moved slowly and hesitantly near the ground.

"All quiet," reported Tubby. "Look, there's Hartnell's little friend, Pinky."

"The one you nearly trod on? Where?"

"Doesn't seem to be making much progress—"

Whereupon the coin dropped with a resounding clang simultaneously in all our minds. Pinky!

Through the morynium visor of his helmet, I saw Hartnell's eyes literally bulge. A small, tenuous, pink sphere—save for Makkub the only bubble of its type on the planet! One was born every seventy years—and we had stumbled upon it unaware.

"Well, well!" said Hartnell, softly. "Now we can make matters hum!"

"Look here," I told him uneasily, "we keep sticking our noses into politics. I don't like it—"

He took no notice. All thought of descending into the dark incubator caves forgotten—which was a comfort, at least—his only concern now lay in ways and means of hitting back at Makkub. The controllers, had they known, would have liked it even less than I did.

"Come on," said Hartnell, "or we'll lose him. If he once hides among all those others—"

He set off almost at a run, Tubby and I following with some reluctance.

The same Providence that is supposed to look after children and drunken men saved the wandering spheres from our heavy boots. At least, we had no memory of treading on any during that staggering, ridiculous pursuit which finally brought us close again to little Pinky.

Once more curiosity had him nuzzling our ankles and he prodded so strongly against my heel I feared he might meet the same fate as the guards in the Place of Execution.

"Stand still!" yelled Hartnell. "You'll damage him!"

"I am standing still!" I said, irritably, because the entire proceedings began to unnerve me. "But how in Altair do you think you're going to get him away from here?"

He regarded me pityingly. "The Mattus, of course! What

sort of things do human kids like? Chocolate? Ice-cream? Nice, brightly coloured fruit and similar stuff, don't they? Just conjure up big dollops of the Kardoon equivalent, Pop, and lure him to follow us."

It was utterly fantastic, of course. "They don't eat," I said, stuffily. "What's the good of offering even an entire confectionery counter to a—"

He made a gesture of mingled impatience and despair, saying I was a gross, unimaginative materialist. "I know that! All I'm trying to suggest is that you produce some suitably enticing thoughts. I can't go into details—that's your job—"

"Perhaps he won't like me. Children have unreasoning prejudices, I'm told—"

He said that this was only making difficulties and I should either get on with the proceedings or let him try the Mattus himself. To some extent he was right. I didn't fancy the idea at all.

"He might turn out to be a little Makkub—"

Hartnell's expression could not have been more pained if I'd deliberately insulted his favourite nephew. "All right," I said, hurriedly. "I'll try."

In the course of our wanderings the Mattus thought-transferer has provided many uncanny mental experiences—some exhilarating, some horrific, others quite entertaining. Yet none, I think, is quite comparable in any way with the affair of little Pinky. (Needless to say, this absurd epithet stuck to him throughout subsequent events in the same way that we never knew Fuzzy-bubble's real name.)

We had already learned, of course, that the spheres entered their world in a moderately adult state. Physically—if such a description can be applied to a fragile, shimmering globe of pure force—they expanded, moderately after coming loose from the rocks; mentally they were already adolescent, requiring only a brief general education in the incubator caves, after which they took their places in society as adult citizens, with duties allotted according to their aptitude.

I held out the Mattus rod gingerly and switched on, not knowing quite what to expect. First impressions were utterly confused—as well they might have been—yet over this chaos spread a queer blanket of helplessness, bewilderment and, peculiarly enough, contentment. The mental atmosphere might be likened to that when a man finds himself half-awake

in a very comfortable bed in a strange room, idly wondering where he is, but too bemused to bother overmuch.

And in addition there was a peculiar juvenile simplicity which, when I'd sorted things out, made the proceedings enjoyably easy. This pleasant surprise heightened my enthusiasm, and little Pinky proved undeniably friendly.

"What are you?"

The question came with interested curiosity. Not "who," mark you, but "what." At least he recognised us as beings different from his own species. I did my best to tell him—referring to myself alone to avoid complications—but without much success.

"And what is that?" He indicated Hartnell.

"That," I said, determined on a measure of revenge, "is your uncle Hartnell."

To this day no satisfactory explanation has been provided, although I've discussed the matter with psychologists and psychiatrists in many places. The best theory they can put forward is that the Mattus unconsciously transmitted my own deep affection for young Hartnell—which certainly exists, despite his many exasperating ways—and was accepted and copied by this juvenile sphere. Tubby advanced a quite different idea that Pinky instinctively recognised "another big bag of wind," but whatever the reason there is no denying that this small, rosy globe metaphorically attached itself as a nephew to a favourite uncle. The introduction of Tubby met with scant reaction and all the wide-eyed wonder remained centred on young Hartnell.

"And who am I?"

I didn't suppose for a moment that Pinky would appreciate the implications. "You," I said, "are a prince of Kardoon."

"What's a prince?"

The others, standing in silence while the Mattus worked, exhibited signs of impatience.

"Come on, Pop," said Hartnell. "Those nurses or whatever they call 'em might be back at any moment. I don't hear 'em cheering any longer. How's it going?"

I told him everything was under control.

"Is it? You've talked him round? Let's get going, then."

I got to work again on little Pinky. "We must leave here now. We will see all the wide fields—" I couldn't think of a more attractive description that might make a small boy wish

to look at bare expanses of brown desert. "—on the other side of the hills."

I sensed reluctance to leave familiar places.

"Why?"

"Don't you want to go with Uncle Hartnell?"

That did it. He floated obediently alongside, at waist-height, while we carefully retraced our steps through the defile. There was only one possible line of action—to place little Pinky in Fandar's care and find out if news had been received from Fuzzy-bubble.

The Mattus that day provided a rich fund of emotional eavesdropping. Fandar positively goggled when he saw what we had brought with us and he bobbed unceasingly in homage.

"A prince of Kardoon!" he breathed, half-unbelievingly.

"You realise what this means, O strangers?"

We might not appreciate everything, but we understood a good deal of the implications. No obstacle now stood between the council and a formal resolution to depose Makkub, although I didn't suppose for one moment that matters would be as simple as that. A tactical dilemma presented itself. Should we keep Pinky's existence a secret for the time being—or should we immediately announce him to the populace at large, thereby forestalling any murderous attempt by Makkub to eliminate this new opposition? The trouble was that we were out of touch with latest developments in the Great Halls.

Confronted by Fandar, Pinky knew his first experience of divided loyalties. He immediately recognised this yellowish sphere—who kept bobbing respectfully—as one of his own kind, yet Uncle Hartnell remained an undeniable attraction. The poor little fellow's bewilderment was obvious.

"A baby prince!" repeated Fandar, almost overcome by the wonder of events. "Truly, a momentous day!"

"Look here," said Hartnell, "we've got to find out what's happening down there. How about trying again to get in through the nursery?"

"We could wait for Fuzzy-bubble—" began Tubby.

"He might be hours! Or he might have been caught—"

I fell back on the blessed solution of compromise. "Give him another ten minutes or so. If he hasn't turned up by then—"

Meantime we didn't fancy being surprised, so I moved off

to a point where I might look down upon the approaches to our hide-out, while Hartnell and Tubby stared in fascination at Pinky and Fandar, who busied themselves with squeaking, incomprehensible discourse.

The brown rocks looked much the same; heat still pressed down from the unnatural sky. No moving thing was in sight. I lay, watching from between two large stones and hoping that no tell-tale reflection glinted from my helmet, for what seemed a long time.

Then a sphere came in sight, floating rapidly—almost furtively—under shelter of the cliff. I caught a purplish sheen and knew him for Fuzzy-bubble.

Scrambling down to meet him, I waited with the Mattus rod poised. He arrived filled with apprehension. "Now, surely, is civil war come upon our people! Scenes of uproar without precedent take place in the Great Halls! Battle cannot long be delayed!"

I told him to calm down and explain what all this was about. "Makkub's proclamation concerning the Machine of Revelation. His guards selected half the population as sacrifices—"

I said, rather impatiently, that we already knew.

"There has been much murmuring. The chosen thousands recent having honour thrust upon them"—I suppose anybody would, in the circumstances—"whereas others, rejoicing at their own escapes, insist that Makkub be obeyed. The opposing forces are almost equally divided. I fear there will be great killing—"

I was on the point of breaking the glad news about little Pinky when we suddenly found ourselves surrounded by nearly a dozen green guards. In his anxiety, Fuzzy-bubble had let himself be followed, and I'd been too engrossed in his news to notice.

*In For a Penny, In For a Pound*

THE exceptionally rough journey back to the throne room may have been because the guards knew of their comrades' fate in the Place of Execution or merely because I came under the heading of "Escaped Prisoner—May Prove Desperate." Whatever the reason, when I stood once more before Makkub it was as much as I could do to remain upright and hold out the Mattus antenna.

My left side was a mass of bruises from shoulder to hip where they tumbled me unmercifully up and down the slopes of the Great Halls, never actually losing the grip of their force-beams, but easing the power so that I rolled head over heels in the darkness, then snatching me back again to the heights where they floated with such uncanny ease. Once I thought of adapting Hartnell's ingenious ruse and switching on the gravity-reactor in the hope that it might intercept a force-beam and send its owner slamming against the roof. Only the realisation that, in turn, I would drop to the bottom of the cavern dissuaded me.

Finally they slung me into the open space before the council, where I waited, dazed and exhausted, to see what happened next. Never again, I vowed bitterly, would I let Hartnell trick me into political interference. Despite all our chafings at red-tape, the higher-ups of Inter-X knew what they were doing when they framed rules for landing parties. Given the chance, I'd behave according to the book on any future expedition.

Makkub, squatting on his idiotic throne with green Pakkan, orange Zakkar and the semi-circle of counsellors around him, didn't waste any time before beginning to gloat. In fact, I got the impression he particularly welcomed the opportunity as a diversion from a rather uncomfortable situation.

"Now, O misshapen one, do you realise there is no escape from the watchful eyes of Makkub! Listen, all people! Here before you is the thing which has brought such distress upon Kardoon—whose wilfulness in refusing to impart his

secrets has made it necessary to consult the Machine of Revelation to such a great extent. He is one of those responsible for three hundred thousand being called upon to make the Sacrifice of Honour!"

The great squealing that arose shrilled in my helmet so unbearably as to make me switch off the inter-com and rely solely on the Mattus. I had no one to talk to, anyway.

But what distorted "logic" was this? And who said the spheres weren't intelligent. Obviously I was being used as a scapegoat to subdue rebellious spirits and direct their wrath away from Makkub.

"Therefore, let all present witness that I call once more upon this Ugly One to reveal how the ruler of Kardoon, too, may possess a grave at which men may worship. How say you now, O Thing?"

I repeated what I'd told him before. "Such matters cannot be—"

He commenced to vibrate with fury, bouncing on the point of that ivory rod and quivering so ominously that I expected him to emit sparks. The packed spheres shrieked in a chorus of enmity.

"What have you to lose, O monster? You and your companions will have graves here on Kardoon. Such has been decreed by the Machine and from that there is no escape. Why, then, do you deny such privilege to me, Makkub?"

"Sometimes," I said, "graves are no places of honour, but men spit upon them as they pass. Such action depends not on the grave itself, but upon the lifetime character of the occupant."

This made him think for a moment, but he determined not to be balked. "We will tolerate no insults. All men know that my rule over Kardoon has been wise and beneficent. Come now—one final chance before you are handed over to the executioners—"

Play for time, I told myself, desperately. But how? Strictly speaking, in such circumstances, Hartnell and Tubby should have made their way back to the ship, so that knowledge of life on Kardoon might be reported for the archives. That—no more and no less—comprised the purpose of our

expedition, and the regulations made no bones about the fact that information was worth more than a few Inter-X lives. As Tubby said before, in a tight corner, we signed on with our eyes open and never hesitated to take the money; therefore we ought not to be surprised if one day we found ourselves called upon to honour the bargain. Yet red-tape can never tie down the human element completely, and I felt sure that the others, far from leaving in the scout ship, were lying low until little Pinky could be smuggled somewhere safe.

"Tell me!" roared Makkub. "Reveal your secret or—"

And while I stood there, dry-mouthed and aching, a sudden scuffle sounded behind me. It was Hartnell and Tubby, being pushed through the throng at the end of guards' force-beams and with dust-smudges on their suits that showed them to have had a trip as unpleasant as my own.

Hartnell, naturally, grinned. "Hello, Pop. Makkub still here?"

"Where's Pinky?" I said, in alarm. "They didn't get him, did they?"

"Frankly, I don't know—we had other things to think of at the time. What's been happening to you?"

I gave them chapter and verse, right up to the final ultimatum. "We've got to play for time," I said. "I've racked my brains but I can't think of anything—"

"Why not let Fuzzy-bubble give 'em a soul-stirring address about little Pinky's arrival?"

My heart leapt, then fell with a thud. "He doesn't know, either. Think he'll take our word for it?"

"At least," said Hartnell, dryly, "you could try."

As I expected, Fuzzy-bubble viewed the news with polite scepticism. "It would be a great marvel," he said, with a sigh, "yet it is impossible. Mistakes in recognising princes of Kardoon are not unknown among our own people, even the nurses—"

"Fandar saw him, too."

This shook him a little, but he resumed his attitude of doubt, wagging his head sadly, as it were. "Fandar is a most worthy friend—yet his days are spent in a world of

records and archives. He knows little of outside matters—"

"Very well," I said, determinedly. "If you won't tell them, I will!"

To give him credit, he threw in his hand on our side. "The story might gain time," he said, reflectively. "Once a seed of doubt is sown—"

Seeds of doubt were sown all right. Not only doubt, but a lot of other assorted reactions. Sighs and gasps of astonishment mingled with guffaws of ridicule, outcries against blasphemy and whispers of hope. Even the counsellors were plainly baffled. Some suspected Fuzzy-bubble of sheer, downright lying to save his skin; others, remembering him as an upright character, became strengthened in their opposition to the present ruler and saw an opportunity to depose him.

Most vigorous denunciation, of course, came from Makkub himself. "Time shall not be wasted with this farrago!" he screeched. "I call all men to witness this traitor who allies with the three monsters against his own people. He is not worthy of his race—a renegade and coward, deserving of death. He lies merely in order to confuse honest men and turn them against their rightful governors—"

I stepped forward and pushed out the Mattus rod. "We, too, have seen the young prince." Putting forth all the emphasis and concentration I could exert, the sweat started running down my face again, but I wanted the council to hear. "Although Makkub has murdered other successors, we have this one safely hidden!"

The dreadful whisper whined and swelled. "Killed? The other princes have been killed?"

There was revelation in the council's reaction. The news obviously came as a shock to most, including Zakkar. Pakkan didn't turn a hair, so to speak, but continued to glow spitefully green, whereupon I guessed that he and some of his guards had most likely carried out the order.

Makkub quivered with rage and quite obviously regretted his idle boasting to us in the condemned cell. He saw how counsellors recoiled in loathing upon their semi-circle of perches and decided to bluster the matter through.

"Let none be misled by this scurrilous slander! Heed not

the words of these creatures, for they wish only to save their strange lives and spread more mischief among the peaceful people of Kardoon. Their distorted minds blame us for the fate that is upon them—yet we are entirely innocent in the matter. It is not we, but the holy Machine of Revelation which has decreed they shall never see their own world again. And who shall say that the Wise Ones' wonderful engine depicts matters that are untrue?"

He paused, hoping we'd fall into the trap. It was the old, sickening manoeuvre of deliberately inflaming mob passions to by-pass unpleasant truths. He wanted us to refer disrespectfully to the Machine—and he'd got us fixed very nicely.

But I didn't intend to let him get away with it. "O Makkub, we in turn defy you to produce the red spheres who are intended by the Wise Ones to rule over Kardoon in succession to you! Bring them to the Great Halls, that all men may know your innocence!"

"If the princes are dead," declared Makkub, coming back at us smartly, "it is you and your friends who have killed them by infamous magic. Perhaps that is why your own deaths are decreed—"

It was only to be expected that the assembly believed their own leader in preference to a weird little group of three "monsters" and a purplish-hued renegade. Shrill screams of outrage whined loudly over the inter-com, setting our teeth on edge.

"How's it going, Pop?" asked Tubby.

"Can't you guess?"

His face fell. "Not too good, eh?"

"Makkub's made 'em believe we massacred the red spheres—"

"Stuttering Sirius!" said Hartnell. He gave an exclamation of disgust. "I might have known you and Fuzzy-bubble would muck things up!"

"If he does anything to little Pinky," I said, between set teeth, "I'll—I'll crawl right back out of that damned grave and—"

Makkub actually used up some of his precious energy to hover a couple of feet above the throne. "This is how the Wise Ones' prophecy is fulfilled! How farseeing and sagacious is their undying influence, for their action doubly affects the destiny of our race. The crime of these misshapen strangers not only leads them to their deaths; it also establishes my leadership beyond doubt. Hail to the Wise Ones! How inscrutable are their ways! Now summon the executioners—that all men here assembled may witness the Act of Justice!"

During our adventures on many worlds we had known occasional tight corners, yet in each case we could perceive a gleam of hope. More often than not it was young Hartnell who produced some ingenious escape manoeuvre, but this time he had to confess himself baffled. We were powerless against the force-beams of all those massed spheres, which would be turned against us in any escape attempt, and there was no hope of repeating the trick with the gravity-reactors.

A group of ominous green spheres detached themselves from somewhere in the background and floated towards us. The silence of horrible anticipation now hung over that great black hall as we stood there with obscene radiance from thousands of living bubbles reflected on our suits. A hushed multitude waited to see us torn in pieces.

"Well," said Tubby, "this looks like it, I'm afraid—"

"Never mind," said young Hartnell. "We've had quite a good run—"

"Been nice knowing you both," I said, trying not to choke.

I saw their faces, pale and strained, through the helmet visors. Hartnell grinned faintly. "Say goodbye to Fuzzy-bubble for me—"

The green spheres grouped themselves for business, choosing positions where they might fix their repulsor beams to the walls. I hoped it would be over quickly. I didn't feel afraid so much as depressed. It seemed such a shame that all our opportunities of carving Man's frontiers farther across the shimmering galaxies with Inter-X should be cut short in such sordid, useless fashion. My heart warmed with nostalgia towards all the familiar things aboard *Old Growler*—

even the controllers. I wondered vaguely whether they would write anything complimentary in our obituary reports. I closed my eyes and waited.

A sudden, isolated squeaking sounded over the inter-com, followed by a collective sigh of awe. Makkub giving the executioners the go-ahead sign, no doubt.

For a split-second nothing happened.

Then a prodigious uproar tore at our ear-drums, bringing acute physical pain, so magnified by the tension that I thought those green spheres had actually begun operations. But the head remained safely on my shoulders and I opened my eyes again.

A cluster of spheres piled themselves high across the entrance on our left, which I remembered as leading to the laboratory tunnels.

"What in the name of Procyon's happening now?" demanded Hartnell, blinking with relief.

"I don't know," said Tubby, thankfully, "but it looks like a reprieve!"

And, indeed, the executioners no longer paid us attention. They were putting their force-beams to better use in hauling at the melee—without much success, so far as I could see.

Then suddenly the milling globes parted, and through the gap came Fandar, followed by four other yellow spheres bearing smoothly aloft none other than little Pinky!

I could easily have wept with relief and delight.

"Good old Fandar!" exclaimed Hartnell. "He did it, after all!"

"Pity Makkub hasn't got a face," said Tubby. "I'd like to see his expression right now!"

Holding the Mattus rod often proves inconvenient, but it has compensations. Now, for instance, I enjoyed an exclusive picture of that evil, red sphere's "expression"—twisted with astonishment, terror and baffled rage.

Sometimes I may be a trifle slower than young Hartnell to recognise opportunity, but at that moment there was no excuse for hesitation. "See, all men," I said, straining to make

myself heard over the appalling noise. "Is this not truly an infant prince of Kardoon?"

Great cries of acclamation and homage ripped through the vast cavern, mingled with the shouts of those who still sided with Makkub—mostly, I supposed, those who had been lucky in escaping nomination as sacrifices and didn't want to tempt fortune prematurely until they saw which way the wind blew.

The cluster of spheres which at first blocked the entrance proved to be adherents of Fuzzy-bubble, and they had actually flung themselves there as a protective escort on seeing Fandar's surprising arrival.

"Behold" cried Fuzzy-bubble, admirably taking his cue. "The prince approaches. The counsel should receive him with fitting dignity."

There wasn't much that Makkub could do about it, save sit there grinding his teeth. Being unfamiliar with ceremonial procedure on Kardoon, I wondered whether he was supposed to make a speech of welcome.

Anyway, the clamour decreased, the counsellors sat more steadily on their thrones and various officials began to move with hauteur in preparation for solemn ritual. The effect was spoiled, however, by little Pinky, who bounced from his four-sphere carriage, alarming the bearers and causing scandalised whispers among the counsellors. "Uncle Hartnell!" he cried, delightedly.

His bright, rosy bubble danced round Hartnell's helmet for a few ecstatic moments, then came to rest, quivering with excitement near the control belt. I think he was fascinated by all the switch levers there, and I hoped he wouldn't try prodding them with any force-beams.

Fuzzy-bubble shepherded him back to the quartet of attendants, then turned to me. He had to approach the subject rather delicately, but it boiled down to a wish that after we had witnessed the ceremonies installing Pinky as a Prince of Kardoon, the three of us would remove ourselves to more secluded quarters. "Because," he said, "Makkub retains support among certain sections of the people. Much grief and slaughter may ensue before he is deposed—"

"Could we help in any way?" The "no-politics" rule

caused a twinge of conscience, but I ignored it. We had travelled so far along this forbidden path that we might just as well continue to the end.

The answer proved rather humiliating. Fuzzy-bubble smiled pityingly, as it were, and said "Many force-beams may be used in battle. We might not be able to protect you all the time—"

The truth of this remark made me writhe. Admittedly, Hartnell's ruse had succeeded in eliminating the line of guards who tried to keep us cooped up the Place of Execution, but we would be helpless before direct, offensive action. I didn't like the situation before; these dark hints about open, violent conflict made it even less attractive.

"What you mean," I said, bluntly, "is that you'd rather not have the responsibility of looking after us. You'd prefer us to return to our ship and leave Kardoon. Is that it?"

"If such things could be," answered Fuzzy-bubble, in a rather peculiar way, "my friends and I would rejoice, for you would return to us in happier times. Yet you forget that the Machine of Revelation has foretold how you will never see your own world again. The exact manner in which the prophecy will be fulfilled is not known—but be certain the Wise Ones are never wrong. How else would anyone know the strange marks we saw on the graves, which you say identify the person lying beneath the ground?"

Yes, how could they? That picture certainly wasn't faked. We had seen not only names, but our official Inter-X numbers on the markers. I felt that icy shiver begin again in the nape of my neck and travel slowly along my spine.

Meantime, official initiation proceedings continued. The general effect was meaningless but exceedingly pretty. Faintly luminous spheres of many colours gyrated in stately procession around the three rod-like thrones still occupied by Makkub, Pakkan and Zakkar, shining with their red, green and orange radiance within a circle of purple and yellow globes that moved in single file, in pairs, in clusters and then back again until I felt my eyes watering with the strain. Little Pinky was raised high by his escort. Over the Mattus I could hear him chuckling with delight at the entertainment, to the

disapproval of more sober-minded counsellors.

Hartnell yawned. "How long's this going on, Pop?"

I didn't know. "Anyway, when it's over we definitely try to get back to the ship. Fuzzy-bubble says trouble's on the way."

Despite the concentration of keeping his cameras fixed on that fantastic scene, Tubby clicked his tongue disgustedly. "I'd like to know what we've been having up to now—"

Suddenly Hartnell opened his eyes widely. "What about little Pinky? We can't leave him to Makkub's tender mercies."

"Fuzzy-bubble's promised to look after him—but he can't look after us as well." I swallowed my pride and came out with the truth. "You've got to admit we're pretty helpless against these things and their force-beams—"

He mulled over this unpleasant fact. "He won't like losing his Uncle Hartnell—"

"You can send him a picture-book, with nursery rhymes," said Tubby. The remark was rather heartless, I thought.

Clinching the matter, I said "We might do more harm than good by hanging round where we're not wanted—and if some of 'em get the idea we're siding with Pinky they might back up Makkub out of sheer contrariness."

Hartnell sighed. "I suppose you're right, Pop. Pity, though. I've never had a nephew before—"

Someone must have told Pinky that the ceremony was over, for he suddenly came bouncing across again, freed from official duties, and danced round us, eventually hovering fascinated near Hartnell's control-belt.

No one save myself had the slightest inkling of what was in Makkub's mind. He gave no audible or visible warning about his intentions. Only because I held the Mattus rod, with the switch on, could I detect the surge of unreasoning malevolence that flooded into his mind.

Startled, I glanced first at the big sphere still perched on his absurd, pointed throne—red, evil and scowling; then at the unwitting cause of his discomfiture, little Pinky—pale rose, innocent and laughing.

In that dreadful moment I knew Makkub had decided to extinguish this one frail rival. For how could he suffer? Kardoos must have a ruler. Whatever the penalty for murder, he remained immune—secure from punishment or deposition—so long as no successor existed.

Processes of thought are so instantaneous that these reflections passed in the same moment that I threw the gravity-reactor switch to "Maximum," yelled a warning and hurled myself desperately across the line of fire. In saner moments I'd never have dreamed of so foolhardy an action. Yet what else could I do?

No sooner was I face to face with Hartnell when passing in a gigantic sideways dive powered by the gravity-reactor than Makkub loosed a vicious force-beam. Except for my presence it would have smashed Pinky directly into the row of control buttons on Hartnell's belt. Instead, the invisible bolt spent itself almost entirely against the gravity pack, although sufficient energy remained to swing me round bodily, nullify the remaining impetus of the leap and drop me to the ground like a sack of potatoes.

Facing Makkub in mid-flight, I had a clear view and understanding of the surprising consequences. He was in the same position as the man pushing against a closed door. To this end, he balanced himself with an attractor beam anchored to the stone floor. Once equilibrium became unexpectedly disrupted by my gravity-reactor, this attractor beam took charge—pulling him violently downwards before he could recover. He impaled himself on the rod-like throne—and vanished.

One great gasp of horror ascended from the crowded spheres. Nor was it a manifestation of unanimous approval, and by the time I rose painfully to my feet hostile emanations poured in through the Mattus, with inter-com shrieks so loud and piercing we thought madness had come upon us.

Fuzzy-bubble, having seen young Hartnell's ingenious trick in the Place of Execution, realised what had happened. The general populace, however, fully believed they had witnessed the deliberate assassination of their ruling sovereign.

"You must leave!" said Fuzzy-bubble, urgently. "Come—



or the Wise Ones' prophecy may be fulfilled prematurely!"

"We can't leave little Pinky!" said Hartnell. "They'll rip him to pieces!" He didn't seem to grasp the fact that, whatever happened to us, his "nephew" now enjoyed the status of supreme dictator on Kardoon. If we could only lie low until he established his authority over Makkub's crowd all might yet end happily.

"Fandar will take charge here," said Fuzzy-bubble. He grew increasingly apprehensive. "Come! We have no time to lose—"

We stumbled hurriedly to the exit with cries of baffled rage echoing round the great cavern. I saw how the same line of spheres who had facilitated Pinky's first entrance now held back the crowd while we escaped.

A pitiful little voice sounded through the uproar as I cast a final, backward glance. Four attendants were firmly but gently placing a small, rose-red sphere on the tall, central throne between Pakkan and Zakkar.

"Want to go with Uncle Hartnell!" said Pinky, plaintively. He might be a dictator, but he didn't have his own way in all respects.

"Get moving," I told Hartnell. "Your protegee's nicely launched on a successful career!"

A slow grin spread over his face. "That's right, Pop. Not every lad gets such a good start in life!"

Then it seemed that all hell broke loose in the Great Halls and we were running for our lives through those black egg-shaped tunnels.

## CHAPTER THIRTEEN

### *The Prophecy Is Fulfilled*

FUZZY-BUBBLE'S protecting spheres must have fought a rearguard action with the mob to cover our retreat, otherwise we would have been speedily overtaken during that sweaty, scrambling, nightmare journey, during which we received no help save guidance. On the previous trip, although their treatment was impatient and ungentle, the guards had at least provided impetus with their force-beams for our flagging feet. This time we were obliged to haul ourselves by sheer, physical effort up those steep, curving banks—often only by forming a hand-to-hand chain—and when we tumbled through an entrance aperture the relief was often so great that we slid thankfully down the far side regardless of how precipitous the plunge might prove.

Occasionally Fuzzy-bubble lent slight assistance—but only occasionally, and knowing what his effort entailed, I didn't blame him. It couldn't be particularly cheering to realise that every time he lifted one of us bodily up a slope a day or so became sliced from his allotted span of years. Nevertheless, he did his best, and eventually we emerged blinking into the light of Kardoon through the incubator caves—lined with neat rows of little, glowing spheres—into the nursery.

Then across the spawning rocks, with their masses of soap-bubble growths, into the defile between the cliffs and eventually to the wide plain. Nurse-spheres remained with the mob in the Great Halls, so that everywhere lay still deserted save for the new-born globes moving slowly and uncertainly a foot or so above the ground.

"Heed well the skies!" cried Fuzzy-bubble. "Observer parties from the guards will be flying high, trying to locate us."

So, while we hugged the base of the cliff, our eyes turned continually to that uncanny, pink firmament, trying to distinguish against the glare any glint of floating bubbles.

I remember thinking we had quite enough to occupy our attention apart from that. Hampered by the whipping Mattus rod, I stumbled in the wake of Hartnell and Tubby, wondering whether they felt equally exhausted and depressed. Despite latest Mark V air-conditioning, the Bergmann suit had grown so stifling that I feared a puncture, which wouldn't have been surprising, anyway, considering how the fabric had been abraded—especially on shoulders and hips—during underground clambering. Punctures mean leaking oxygen, and even the normal 100-hour supply won't last long at that rate. I was sticky all over with sweat and didn't think I could go much farther.

"If he's taking us the long way round to avoid passing the main entrance," said Hartnell, discouragingly, "we've a tidy stretch to cover yet."

This, naturally, failed to cheer me overmuch, and in some ways I wasn't at all sorry when Fuzzy-bubble cried "Listen! They're coming! I can hear the flight director's orders!"

We dodged into a convenient fissure, where overhanging rock screened us from view, and lay down. The relief was heavenly.

It didn't last long, however. "Quick! They will seek us here! Move farther into the cliffs!"

Climbing over and around great boulders, slithering and cursing across loose scree, diving all the time beneath sheltering precipices, I completely lost sense of direction. At length, when the fissure came to an end, we hauled ourselves gingerly to the topmost rock and peered out.

Kardoon's familiar landscape spread itself to our gaze in uncannily familiar fashion. The scene of a flat plain enclosed by cliffs repeated itself, producing the impression that we "had been there before," yet unidentifiable by landmarks.

Then, while we watched, a crowd of spheres poured from somewhere among distant rocks and set a course with unmistakable purpose.

"It is the main force of guards!" cried Fuzzy-bubble.

I heard young Hartnell catch his breath—and in the same instant all of us knew why the view proved so easily recognizable.

"The picture!" breathed Tubby, in a low, awed voice. "The picture in the Wise Ones' machine!"

It was there, just as we had seen it earlier in flickering, uncertain images—the rugged, desolate land, the coloured sky and the soaring clusters of spheres.

Fuzzy-bubble's reaction mingled sympathy with satisfaction. "What have I told you, O strangers? The Wise Ones' prophecies are always fulfilled."

"Look!" said Hartnell, grabbing my arm. "Look, they're not coming this way after all! What's the idea?"

"Probably a false alarm from the spotters. Maybe they've seen a piece of mica shining on the ground and think it's one of our helmets."

"Maybe you're right, at that, Pop." I could see he was thinking deeply. "You know—I've got an idea!"

Deep uneasiness gripped me. "Don't do anything foolish—"

He grinned, whereupon I feared the worst. "You and Tubby stay here with Fuzzy-bubble. I won't be gone long—"

"Listen!" I said, desperately. "Listen—what are you up to now? If it's any more of your hare-brained tricks—"

He was all wide-eyed innocence. "Tricks, Pop?"

"You know very well what I mean."

"Don't go away," said Hartnell.

He slithered quickly and easily among the rocks and became lost to sight.

Tubby and I looked at one another for a tense drawn-out moment. "What's he up to?"

I shrugged. "You know Hartnell—"

"Always has to do things the hard way," agreed Tubby. "All we need do is to lie here and keep our heads down and the spheres'll get fed up with looking for us and go underground again."

Poor Fuzzy-bubble was completely baffled by the proceedings, but at least he appreciated the good sense of staying under cover.

The soaring guards had vanished in the sky. Nothing moved against the inhospitable, brown background.

It grew hotter than ever.

Time passed, each second ticking another grain to the weight of our uneasiness.

"The guards!" said Fuzzy-bubble, suddenly. "They're out!"

"Oh, Betelguese!" I muttered. "Where's that fool Hartnell?"

We could do nothing save hide until the flight had passed. They seemed to be moving quite rapidly, but it took a long time before I dared push my head up again.

Then the cold hand squeezed my heart, for as we stared out yet another picture from the Machine of Revelation came into view—a representation of spheres returning with, as Hartnell had said in spacemen's jargon, "mission completed." They flew unerringly across the plain and vanished whence they had originally come.

"Don't put your head out yet," I said, warningly. "The first lot may come back." I stared round in growing anxiety. "Where's Hartnell?" I repeated. "What's the fool up to?"

Within a few minutes the observer flight passed overhead and followed the main body to whatever headquarters lay among those distant rocks.

"Have they given it up as a bad job, do you think?"

I didn't know what to think. The manoeuvre could be a trick to lure us into the open, or the guards might have been recalled for more urgent duties.

We talked over possibilities for a little while—Fuzzy-bubble's ideas were no more useful than our own—and before any plan of campaign emerged a sudden scrambling sounded from farther along the defile, making us grow tense with apprehension.

It was Hartnell. He didn't bother to approach very closely, but stood there in the open waving his arms for us to join him.

Tubby and I looked at one another.

"Do you think—?"

I shrugged. "How could he?"

Tubby grunted. "Artful—that's the word for him, Pop. Hartnell the Artful. A very good description—if you can pronounce it."

"Stop your jabbering and come on!" said Hartnell. "Let's get back to the ship while they're all out of the way. Here am I going to all the trouble of clambering over rocks instead of using the inter-com so that the spheres won't overhear and all the time you're chattering away like a lot of monkeys on Arcturus."

He was doing quite a lot in that line himself, but I hadn't the inclination to argue. His suggestion about trying to reach the scout ship held much sound sense.

Fuzzy-bubble accompanied us to the edge of the plain where we had first seen him and encountered that uncanny force-barrier. The entrance lay about three miles to our right—a dark gap in the cliff-face—but no tell-tale pinpoint of reflected light betrayed the presence of guards on the rock.

"Now," Fuzzy-bubble said, "I must leave you, for there is much to do." Judging by events in the Great halls and afterwards this was understatement. "Even though you have been unable to help us, as I hoped, your visit has brought much good and opened a new era on Kardoon. Perhaps the many thousands of lives you have saved from Makkub's unholy ambition will serve to prolong the existence of our race. Only the shades of the Wise Ones know for certain, and we shall never consult them again. We will wait in ignorance, but in hope, for whatever the future may hold."

"Little Pinky," said Hartnell, anxiously. "Is he sure Fandar's looking after him all right? I don't particularly trust Pakkan and Zakkar—"

"Pinky?" said Fuzzy-bubble. I thought his tones held a certain coldness and reproof. "The Grand Ruler of Kardoon is certainly safe. Not even those who sided with Makkub will harm our youthful new sovereign, for they realise that a red sphere must command, and there is none other. Rather is their wrath directed against you, whom they accuse of murdering Makkub."

I sensed the way he made a decision not to linger.

"Now, O strangers, walk warily. Make the long journey in the shadow of the cliffs, that guards may not find you. Between this point and the place where your incomprehensible vessel rests must the prophecy of the Wise Ones be fulfilled. Farewell—for we shall never meet again!"

Solemnly, he moved from one to another of us, bobbing briefly in salutation near our helmets, then floated quickly away through the hot air, growing fainter and fainter until at last only an intermittent bright speck marked his path. Then that, too, ceased and he was gone.

Tubby sighed. "Poor old Fuzzy-bubble. Cheerful sort of chap, isn't he? Still, I suppose he did his best, and we've a lot to thank him for."

Personally, I didn't particularly thank Fuzzy-bubble for reminding us about the one remaining picture from the Machine of Revelation that so far remained undecided. Every time I recollected those three tragic little mounds, with the markers bearing our names, the icy trickles ran down my backbone.

"Well," I said, speaking more bravely than I felt, "no use standing here. Let's press on."

We did so in silence, trudging resolutely and watchfully round that wide plain in the effort to escape observation.

"This suspense is killing me," said Tubby, moodily. "Is it going to happen—or isn't it?"

I couldn't help him. Nagging all the while at my thoughts was the inescapable fact that all the other pictures had materialised. Were we as vain as Makkub in believing that Destiny singled us out for preferential treatment? I began to wish at least that if Death were upon us the job might be accomplished before we'd gone to all the trouble of walking back to the ship.

"Think of the controller," said Hartnell, consolingly. "Everything'll be forgiven when he reads the pedometer totals!"

"It won't," said Tubby. "I suppose they'll bury our suits with us!"

It wasn't altogether the happiest of journeys.

Towards the end, when we climbed the ridge from which we first heard those strange, shrill, whining sounds in our helmets, Hartnell had to be helped along.

"You say the gravity-reactor isn't working? Probably that rough treatment it had when you wiped out the line of guards."

He shook his head. "No, Pop. I took it to pieces."

We all stopped in our tracks. "Took it to pieces?"

What exactly had he been doing while we waited hidden among the rocks? "What for—in the name of Altair?"

But Hartnell merely grinned and said he'd tell us later.

So at length we breasted the summit and saw our ship. On many worlds through the years our eyes had rested on scenes of surpassing beauty. None gave us quite so much satisfaction as the sight of a bare, brown Kardoon wilderness—with the scout ship shining proudly in its midst.

Sands of time for the Wise Ones were running out fast. Another half-hour and their record for infallible prediction would lay in splinters.

"Unless, of course, we get wrecked at take-off," said Tubby. It wasn't one of his particularly optimistic days.

## CHAPTER FOURTEEN

*The Riddle of The Graves*

THUS we brought our journeyings into full circle. We climbed into the ship and moved the lever which automatically locked all space ports. Observation screens—visual, telescopic, radio-cosmic and ultra-violet—showed no movement across the wide plain or in the pink sky.

Young Hartnell—who once took a special course of study in scout ship flying and invariably assumes the role of pilot on such occasions—seated himself at the controls and began to set meters ticking, coloured signal lights winking in preparation for departure.

"I think," I said, doubtfully, "we ought to report now. Just in case—"

The others looked at me.

"Do that, Pop," said Hartnell. "As you say—just in case. Though I might tell you I can handle one of these flying beetles as well as the next man—"

"No reflection," I said, hastily. "It—it's just that damned Machine of Revelation—"

They watched in silence while I launched the call-sign on its radio journey across empty wastes to *Old Growler*. Over millions of miles impulses sped at the speed of light—186,000 miles a second—yet a minute and a half elapsed before answer came.

"Controller," said the ship, unemotionally. For all the interest he showed I might have been calling up the equipment department to order a dozen nuts and bolts.

"Preliminary report before official recording," I told him, and briefly outlined what had happened since our landing. Two points caused a slight manifestation of interest—the Machine of Revelation and the unfortunate political situation in which we'd become embroiled. When I confessed our activities in the latter respect—for Inter-X men aren't brought up to conceal facts, however unpleasant—Tubby and Hartnell crowded closer, making faces and gesticulating to ensure I should present our case as strongly as possible. They had good reason, too, because the controller made no secret of his disapproval.

"You say the present ruler of Kardoon is friendly?" he asked, at last.

I thought of little Pinky, perched on the tall throne between the orange and green spheres of his chief advisers, with the council pedestals curving away to either side. "Yes," I said, "definitely friendly."

He then switched inquiries to the Machine, for which I was extremely thankful. "You say all prophecies have materialised save the picture of the graves?"

Even controllers can sometimes be stupid. If the episode of the graves really had been fulfilled, how could I be talking to him? From the corner of my eye I saw young Hartnell grinning and making absurd gestures of derision.

"That is correct," I said, solemnly. "Report is being forwarded now in the event of mishap at take-off which might lead to burial of present personnel as recorded by the machine."

He actually became human for a moment, "You mean to say you actually believe in this machine's capabilities?"

"We're not really enthusiastic," I pointed out, carefully, "but what else can we do?"

"Wait."

Then we knew that a slight hubbub must have developed

in the higher levels of the ship where the scientific panel sits in permanent session, and even controllers daren't interrupt the deliberations of these great brains save for some really extraordinary event. I wondered if, when the controller told them, the panel might have any explanation of that fantastic apparatus, with its countless thousands of intertwined tubes and its electrodes across which pictures of events yet to come formed upon a tenuous electronic screen built from living force.

His voice sounded unemotional again, and I knew by the tone that subsequent words were in process of being permanently recorded for the archives. "Present your report, with fullest details, immediately."

When it was over, he said, "Every precaution must be exercised at take-off. Make immediate structural, electrical and mechanical check of the scout ship. Emphasis to pilot that there is no margin for error."

Hartnell made some sarcastic comment, whereupon Tubby said: "Don't take it as a personal criticism—they aren't concerned so much about our skins as the information and the films we're carrying."

Continued uncertainty proved unnerving. "Come on," I said. "Let's get it over."

The controller had one last word. "Report immediately for rendezvous instructions when scout ship is clear of Kardoon's gravitational field. That is all." I heard a faint, almost imperceptible click as the recording gear was switched out, then he added, rather surprisingly, "Good luck."

This touch of informality between controller and field squad—whose relations are normally tinged with guarded hostility—seemed to call for acknowledgement. "Thanks," I said. "We'll need it."

Hartnell locked in the firing relays and we adjusted safety belts. I began to sweat again. Coloured lights winked along the control panel mockingly, while every swing of dial needles

ticked away another second of my life.

Then the big, red warning lamp flashed—slicing off the pre-launching intervals. An ignition indicator clicked over. Hartnell snapped the last switch and leaned back in the pilot's chair.

"That's that," he said. "I've done all I can. Now the ship's taken over—wait for it!"

Thunder of firing jets sounded dully on our ears and the entire vessel began to tremble. I'd lived though such events dozens of times before and paid scant attention. On this occasion my eyes bulged with trying to watch all the reaction meters at once, but instead of needles and dials I saw only a sombre landscape and three graves. The safety belt across my chest seemed so tight that it constricted breathing.

Next instant, thrust tightly into the chair by acceleration, I knew we had left the ground.

Somehow, we continued to exist through succeeding minutes. Each moment I expected the pressure to ease, denoting a serious engine failure; my mind rapidly traversed such gruesome possibilities as a sudden fatal swing brought about by atmosphere vanes cracking away from the hull.

But nothing untoward happened. The ship left Kardoon's atmosphere safely, Hartnell kept acceleration at maximum and we knew a warm, indescribable feeling of relief. I looked again at the meters. Whatever might go wrong now, our velocity ensured that we were not destined to fall back upon those cruel brown rocks.

I freed my safety belt and took a deep breath. "Well," I said, quietly, "so it didn't happen after all!"

Tubby wriggled uneasily. "Our names are mud already over that political business. What'll the controller say?"

Hartnell laughed. "Don't you like the idea of going back to the ship? Are you sorry the Wise Ones' prophecy flopped?"

"It seems ridiculous now—it wasn't at the time."

"But," I said, "what's the explanation of the pictures that actually did come true?"

I pondered further upon a theory of time we'd previously discussed. Suppose the future reached us in a constant stream of episodes, like representations in a moving-picture projector. Light travelling from distant stars often took many thousands or millions of years to reach us. Sometimes the star itself which we saw in the night sky had long since ceased to exist—yet it was still linked to us by that band of light extending across untold voids. Suppose, again, there was a similar "band of light" reaching towards us from the future, bearing within itself "moving pictures" of events yet to occur. Stationary upon our own vantage point, and allowing time to roll past at its normal velocity, we saw these events gradually unfolding themselves. Yet was it entirely impossible not to wait until the future's "light" reached us, but to construct a machine which captured and reflected the "light" a little way ahead? In that case we might certainly view the same events twice—once upon the machine's screen, again in actuality.

But in what way could the Machine of Revelation have slipped? Was it, perhaps, subject to hallucinations?

I mentioned these speculations to Hartnell, but he only laughed. "Don't you believe the Machine at all, then?" I asked, rather hurt.

He grew solemn again. "Oh, yes, Pop. I believe it shows the future—a bit flickery and uncertain, perhaps—but it works."

I spread my hands helplessly. "Well, then—"

Tubby, slightly less bewildered and baffled than myself, first caught the glint in Hartnell's eye. "You've got something up your sleeve!" he said, accusingly. "Something you haven't told us!"

"Who? Me?" He must have known he couldn't bluff it out any longer.

"That gravity-reactor!" I said, in sudden inspiration. "You took it to pieces! Why?"

His white-toothed grin was sheer, infuriating mockery. "You ought to know! Both of you saw it!"

"Saw it? When?"

I felt the hair prickling in the nape of my neck.

"We're still here, aren't we?" demanded Tubby. "How can we be in those graves and in this ship at the same time?"

"Who said we were supposed to be in the graves?" asked Hartnell, softly.

"Who? Why—why—if we weren't—well, what's the idea of the graves, anyway?" Tubby became flabbergasted into incoherency. I kept my mouth shut, but I felt the same way.

Hartnell said we'd have to believe the theory that no one could escape the future. On that supposition, all events were predetermined, but didn't necessarily work out at face values.

"Face values," he said. "That's the crux. Like all other machines, the Wise Ones' gadget can't think—it merely records what it sees. It certainly saw those graves. Now I won't pretend to explain what happened—all I know is that I got an idea when the guards were after us—you remember, I left you among the rocks?"

"Yes," I said, "and nearly gave us several assorted heart attacks."

"Well, the guards knew what Earthmen's graves looked like, and they knew we didn't occupy 'em till we were dead. So while it was quiet I took a few armfuls of boulders and scree from the cliff-face and made those mounds. Just for a realistic touch I broke up the gravity-reactor casing—I'd got nothing else—and made markers with our names and numbers. You saw what happened afterwards. When the guards spotted those graves they fully believed us to be dead and went back to their hidey-hole."

I sat down quickly, dizzy with confusion. "But the Machine—how did the Machine know you intended doing that?"

He shrugged. "I don't suppose it did—it merely recorded the scene at that particular spot at that particular time in the future." He switched on the grin again. "The Machine wasn't wrong, after all, was it?"

I shook my head slowly. "Everything we saw on that screen came true—everything!"

"If only I'd recognised those markers as bits of casing—" said Tubby, doubling his fists and making threatening motions.

Young Hartnell laughed with a curious intonation. "You know, that's the funny part about it—I did!"

We'd made our official report and received rendezvous instructions. Nothing lay before us save a couple of days' tedious journeying back to *Old Growler* and the subsequent prospect of unpleasant interviews with our superiors.

"Probably a court-martial," I said. "Taking intelligent life with intent—that's how they'll frame the charge."

"I wouldn't be surprised," said Hartnell, "if they don't forget any charges when they open the pedometers and see how busy we've been. Exceptional devotion to duty—and all that."

"There's some impressive mileage, admittedly—"

He nodded mysteriously. "More than you think, Pop."

I stared. "You can't fake the pedometers—they're sealed!"

His lips curved in a pleased manner. "Not to a force-beam! I had a look at the mileage indicator when I took my suit off. The mechanism must have ticked round like mad when they were hauling us through those caves!"

"Anyway, I didn't intend to kill those guards," he went on. "I only wanted to make 'em let go. Besides, your affair with Makkub was sheer accident and he got nothing less than he deserved." He sighed. "Poor little Pinky. He'll think his Uncle Hartnell's dead. Wonder if he'll miss me—"

I was still thinking about the forthcoming interview. "You know how fussy they are about intelligent life—"

"Intelligent? Those bubbles?"

"Why, aren't they?" I said, surprised.

He pretended to consider the matter. "I suppose so, in a way." The well-known grin lit up his lean, tanned face. "But if they'd got real intelligence wouldn't they have asked themselves one question when they saw the graves?"

"What question?" demanded Tubby.

"How, with all three of us supposed to be dead— did we bury ourselves?"

THE END.

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*All characters in this story are imaginary and no reference is intended to any living person. (Copyright 1952.)*



## projectiles (2)

### CRY FROM SING.

For a long time I have been seeking a lady pen pal; she must however be an sf reader. I haven't had any luck so far, and there must be plenty of my fellow readers in the same spaceship, so to speak. Can you help? (I am 21.)

R.M.9487 MNE. R. WATKINS,  
Y TRP. 40 Commando R.M.,  
C/O G.P.O., Singapore.

*We don't usually go in for this sort of thing, but in view of reader Watkins' obviously limited opportunities, we make an exception.*

### AND ONE FROM AUK.

I would appreciate it if you would print my name as I am anxious to correspond with a young fan (I am 17), with the intention of exchanging notes and books. The science fiction movement is still in its infancy out here.

FRANK DODD,  
72 John St., Ponsonby,  
Auckland, New Zealand.

*That's about all we can print from your interesting letter, Frank. But let's hear from you again.*

### KITCHEN DREAMS

I beg to assure you that the (physically but not mentally) weaker sex is not immune from sf. My ma-in-law, an American in her sixties, has just gone off

to Belgium—with her usual stock-pile of sf. I have three fine sons and three equally fine daughters, but when the days are long and arduous I think of the time when my sons will 'stand by for blast-off' to some far planet, and my day becomes interwoven with the dreams of the future. By this time I have either got all the dishes washed and away or else the water's cold, and I have to come down to Earth and get on with it. Good luck to AUTHENTIC and all its readers.

MRS. M. HOLLAND,  
Medstead, Hants.

*A lovely letter, Mrs. Holland. We could see you quite plainly at the sink! Believe us, we are certain that women are as great sfans as men. A while back we offered to sponsor a Women's Interplanetary Society, but we got no encouragement from the ladies.*

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## s-f handbook

### Terms of interest to science-fictioneers

**Dark nebulae**—Obscuring clouds in the Milky Way consisting of myriads of dust particles.

**Deimos**—Mars' smallest moon, five miles in diameter.

**Diffuse nebulae**—Formless masses of cloudy luminosity, as seen in Orion, for example.

**Deliquescent**—The property of picking up water from the environment and dissolving in it. A deliquescent substance becomes liquid on exposure to air.

**Desiccation**—The process of drying; removal of water.

**Deuterium**—Isotope of hydrogen obtained by fractional electrolysis of water. In combination with oxygen gives heavy water.

**Digsi**—One half the diameter of the Sun or Moon. Used in measuring the extent of eclipses.

**Diode**—Thermionic valve containing two electrodes in the form of anode and cathode.

**Diurnal**—An action or process occurring every twenty-four hours. Man and other animals who sleep at night are said to have a diurnal rhythm.

**Ductility**—A metal is said to be perfectly ductile when it is capable of being pulled out into a wire of indefinite length.

**Duralumin**—A hard aluminium alloy containing 4 per cent. copper and traces of manganese, magnesium and silicon.

**Dynamite**—Nitroglycerine absorbed in kieselguhr. Kieselguhr is an inactive earth consisting of the siliceous skeletal remains of diatoms.

**Dyne**—The absolute unit of force. A dyne, acting on a mass of one gram will give it an acceleration of one centimetre per second per second.

**Escape velocity**—The velocity required to be reached before an object will follow a path away from the primary body and not return without the application of force. In the case of Earth, this is 25,000 m.p.h. To calculate the escape velocity for any primary, multiply the surface gravity by the radius, double it, and then find the square root of the answer.

**Equinoxes**—The two points at which the Sun crosses the celestial equator.

**Excited atom**—An atom in which an electron has been lifted to a higher orbit.

H.J.C.

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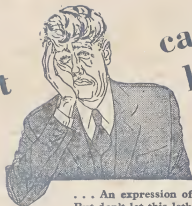
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